

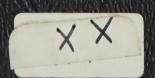


ROYAL COMMISSION ON HEALTH SERVICES

EMERGING PATTERNS WERGING PATTERNS WEREALTH CARE

ROBERT KOHN

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ROYAL COMMISSION ON HEALTH SERVICES

EMERGING PATTERNS IN HEALTH CARE

Robert Kohn

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FOREWORD

This study has been prepared for the Royal Commission on Health Services. It attempts to supplement the evidence gathered by the Commission concerning certain types of health services and their changing relationship to one another.

The inquiry of the Royal Commission on Health Services is only the latest in a long chain of studies into matters of health and health services in Canada. Unlike any other research in the field of health services, this inquiry was the first to look, according to its Terms of Reference, into all matters "appropriate for the improvement of health services to all Canadians" and "to recommend such measures, consistent with the constitutional division of legislative powers in Canada, as the Commissioners believe will ensure that the best possible health care is available to all Canadians". This meant that, for the first time in Canada, a global view of the entire health services complex in Canada was to be taken.

Taking such a view implies not only an appraisal of the component parts of Canada's health services but also a study of their interplay and the evaluation of existing patterns with a view to determining their best possible coordination and organization. It is the purpose of this study to assist the Commissioners by describing some of the patterns that have been emerging in recent years both within specific types of health services and in their interrelationship as well as their function within the wider context of community services generally.

Because of the Royal Commission's global approach to health services as an entity which is more than the mere sum total of its parts, it has been a singular privilege to be associated with the work of the Commission under the chairmanship of Justice E. M. Hall, and to be able to participate in and contribute to the research programme formulated and directed by Professor B. R. Blishen.

Mr. M. Chevrier's assistance in assembling some of the material for this study is gratefully acknowledged, as is the great help of Mrs. J. Armstrong and her staff at all stages of the typing and proofreading and to Mrs. E. Dawe for her painstaking editing. To Mr. L. Tessier and his staff at the Dominion Bureau of Statistics goes the credit for the expertly prepared charts.

Robert Kohn

The Johns Hopkins University, Baltimore, Md.,

A GENERATION OF GROWTH AND CHANGE

Canada today has almost double the population it had 30 years ago; it has over twice the number of doctors it had then; and the number of hospital beds also has more than doubled. The comparison could be continued at length for other health professions and facilities. If the period of this generation has been one of rapid growth for Canada, it has seen more than just the numerical growth of its people and its institutions. It has also been a period of great changes.

If the number of people and the scope of their activities have grown in Canada to double what they were a generation ago, the changes are even more pronounced and faster than the growth. Canada shares the accelerated rate of change, due largely to the fantastic pace of technological development, with the rest of the world. To realize the gains of this generation we need only to think of the many technical items which either did not exist at all a generation ago or were then in their primitive beginnings.

A few decades have changed not only the number but also the characteristics of the people, doctors, hospital beds, and any other health care personnel or facility. Changes in the condition of the Canadian people have been illustrated and discussed in the Report of the Royal Commission on Health Services as well as in previous studies for the Commission. To appreciate the lively pace of change in Canada one need only to remember that many of the cities and towns in Canada's West and many in the East have become what they now are in about a hundred years, whereas the centres of civilization in Europe and other parts of the world count their history in thousands of years.

The momentum of this development has been illustrated thus: the earth is believed to be 5 to 7 billion years old. If we shrink this length of time down to a scale of one year, the first appearance of man would occur on about December 29th, and the first human handicraft such as carved flints and pottery would have been made at 11:55 p.m. on December 31st: "In other words man progressed from caveman to nuclear physicist in the last five minutes" (Sweetman, N. A., "A Final Word on Teacher Excellency", Argus, Nov.—Dec. 1964, p. 44).

² Royal Commission on Health Services, Vol. 1, Ch. 4, Ottawa: Queen's Printer 1964, pp. 107-137; Kohn, R., The Health Status of the Canadian People, study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer, in print, Ch. 2; and the several economic studies prepared for the Royal Commission on Health Services.

The change is even faster than the numerical growth. If there is any one figure which in quantitative terms reflects the changes in the nation's social fabric, it is the measure of its collective economic achievement contained in the amount of the Gross National Product. While numerically speaking we think of people and health facilities roughly doubling during the last generation, Canada's Gross National Product in 1963 was more than tenfold that of 30 years earlier, when measured in current dollars. If we eliminate the factor of inflation, we still find the 1963 Gross National Product almost five times that of 1933 (\$29,380 million in 1963; \$6,359 million in 1933). Allowing, moreover, for the increased population, the per capita amount of Gross National Product in constant dollars has risen from \$598 in 1933 to \$1,555 in 1963, an almost threefold increase.

Another example from Canada's national economic accounts of the changes that occur independently from numerical increase of the population is the output by certain segments of the economy in relation to the manpower employed to produce it. Thus, the Gross Domestic Product in agriculture has increased about ninefold (in current dollars) in the face of a 50 per cent decline in the agricultural labour force from 1933 to 1963.

These few examples may serve to indicate that the increasing number of people in the population also are undergoing considerable changes in their characteristics and environment.

Similarly, there are not only more doctors but medical practice has changed greatly and at a fast rate. MacFarlane and his associates conclude, based on several considerations, including counts of publications and research personnel, that "the sum total of scientific knowledge is believed to be doubling each decade", an expansion which is fully shared by the medical sciences.

Today's hospital bed likewise is vastly different from the hospital bed a generation ago in terms of the services associated with it to the patient and his physician. The complexity of equipment and skills available in the modern hospital increasingly substitute active care for custodial use of hospital beds.³

The medical advances together with higher standards of living and hygiene have fundamentally altered the patterns of disease. Some of the infective diseases, which once constituted the main health problems, are hardly ever seen by the medical student and practitioner of today. Their place is being taken by the more

¹ Statements regarding national accounts aspects are based on Dominion Bureau of Statistics, National Accounts, Income and Expenditure, 1926—1956, Ottawa: Queen's Printer, 1962; and Dominion Bureau of Statistics, National Accounts, Income and Expenditure, 1963, Ottawa: Queen's Printer 1964.

² MacFarlane, J.A., et al., Medical Education in Canada, study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer 1965, p. 29.

³ For instance, in 1932 only 56 per cent of public general hospitals reporting to the Dominion Bureau of Statistics had their own laboratory, compared with 91 per cent in 1962.

complex health hazards characteristic largely of the older age groups.¹ Enhanced medical knowledge and improved diagnostic devices aid in the more correct recognition and identification of health problems. Awareness of genetic effects of health and illness permits the tracing of certain existing conditions to the previous generations as well as the indentification of hazards to which the present generation is exposed but whose effects may become manifest only in future generations. If better hygiene and sanitation have lessened or eliminated some environmental hazards to health, others are now being recognized, and still others are being added, such as, for instance, hazards arising from air or water pollution and radiation.

If scientific advances increase the physician's ability to prevent, diagnose, and effectively treat illness, the patient or potential patient on his part has become more health conscious and aware of the effectiveness of modern health care. While health care has become more complex and also more costly, growing affluence and new devices for the financing of health services have removed or considerably lowered financial barriers to the use of these services.

The trends of growth and change will continue. There can be little doubt about the former, expecially since Canada is still considered an underpopulated country. In regard to social and technological change we can probably expect that the feed-back effects of present advances together with the pressure for more and more intensive education will, if anything, accelerate the rate of progress. In the field of the physical sciences the speed of development is stimulated by international rivalry—largely strategic now but, hopefully, peaceful some day, and what happens in the field of science generally is bound to be reflected in the medical sciences also. Additional stimulation in this field will come from the increasing attention and resources given to health research as a result of growing public concern with matters of health and health services.

The facts of the numerical growth of the population and changes, past and anticipated, in the nation's economic resources form the basis for the Royal Commission's studies into matters of supply of and demand for health personnel and facilities. Projections on a national scale of needs for health personnel and facilities must needs make use of such indicators as population-physician ratios, or hospital beds-population ratios.

But merely having enough doctors, dentists, nurses, and other personnel, and having an adequate number of hospital beds no longer ensures adequate services when and where they are needed. The quality of personnel and equipment too is an important factor which also has received strong emphasis in the Report of the

¹ For a more detailed account of changing disease patterns, see Royal Commission on Health Services, op. cit., Chapter 5, pp. 139-226; and Kohn, R., op. cit.

Royal Commission on Health Services as well as in the studies prepared on its behalf.

The rapid growth of scientific knowledge and the increasing complexity of health facilities and their equipment have resulted in a high degree of specialization and proliferation of services which, like its underlying causes, will continue and probably accelerate. In addition to the proliferation within the health services complex itself there is the growing recognition of the need to dovetail health services with other services in the community, particularly those under the auspices of welfare and education agencies. The division of labour between public and private agencies, and the involvement of three levels of jurisdiction (local, provincial, federal) add to the multiplicity in the provision and financing of health services. Yet all these services are aimed at the person who needs them and, to be most effective, they must be coordinated.

Hence, the design of an effective programme or system of health services requires more than personnel and facilities, adequate in numbers as well as in quality. Sufficient personnel and facilities remain the essential prerequisite. But in addition, we must ensure that they supplement and complement one another wherever necessary. This can only be achieved by proper coordination which, in turn, by making the most efficient use of available resources, will also affect the numbers of personnel and facilities needed.

To describe some of the existing and emerging trends towards such greater integration within our health service is the main objective of this study. This cannot be done entirely without reference to the desirable future end result of coordination, a subject more fully treated in Dr. Hasting's study for the Royal Commission.²

In reviewing these emerging trends, this study does not aim at a comprehensive investigation of particular types of health services, such as those provided by physicians, dentists, nurses, other professions, or hospitals and other institutions. Nor can it hope to deal adequately with specific new phenomena such as medical group practice, organized home care, or coordinated rehabilitation services. Some of these matters were also the subject of inquiries in connection with the work of the Royal Commission. The operation of the Hospital Insurance and Diagnostic

See, for instance, the following studies prepared for the Royal Commission on Health Services: MacFarlane, J.A., Medical Education in Canada, Ottawa: Queen's Printer 1965; Paynter, K.J., Dental Education in Canada, Ottawa: Queen's Printer 1965; Mussallem, H.K., Nursing Education in Canada, Ottawa: Queen's Printer 1966; Morrison, F.A., Recruitment, Education and Utilization of Pharmacists in Canada, Ottawa: Queen's Printer, in print.

² Hastings, J.E.F., Organized Community Health Services, study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer 1965.

See the Report of the Royal Commission on Health Services itself, as well as the following studies prepared for it: Judek, S., Medical Manpower in Canada, Ottawa: Queen's Printer 1964; Boan, J.A. Group Practice, Ottawa: Queen's Printer 1966; Hall, O., Utilization of Dentists in Canada, Ottawa: Queen's Printer 1965; Morrison, F.A., op. cit.; Richman, A., Psychiatric Care in Canada: Extent and Results, Ottawa: Queen's Printer (in print); McKerracher, D.G., Trends in Psychiatric Care, Ottawa: Queen's Printer 1966; Govan, E.S.L., Voluntary Health Organizations in Canada, Ottawa: Queen's Printer (in print); Department of National Health and Welfare, Report on the Provision, Distribution, and Cost of Drugs in Canada, Ottawa: Queen's Printer 1965.

Services Programme is stimulating intensive scrutiny and analysis of hospital operation. But much more remains to be done, and it can only be hoped that the global study of health services and their evaluation in the light of over-all objectives, commenced by the Royal Commission, will continue. Nor can any study in the health field, no matter how comprehensive, be regarded as definitive. The rapid change makes it imperative that such studies be carried out on a continuing or periodic basis such as could be provided for within the framework of a Health Sciences Research Council recommended by the Royal Commission on Health Services.

An efficient organization of health services to guarantee effective coordination could probably be devised by an experienced administrator just by taking an inventory of existing agencies and coinciding needs. Where the state is all-powerful to decree such an organization, it could also be readily implemented. In Canada, however, we are more conscious of established patterns that can be followed or adapted rather than decreeing and imposing entirely new solutions, no matter how cleverly they may be thought out and how efficient they might promise to be. This is part of the democratic way which often may seem inefficient because it is slow, but which in the long run has a better chance of resulting in solutions that are acceptable and accepted by all concerned. It may be well, therefore, to see if the existing health services in all their multiplicity and proliferation contain certain forms of pratice or organization which may serve as a starting point for the building of the over-all structure, and which by encouragement and more systematic application could achieve the ideal envisaged by the practical administrator.



THE IMPACT OF CHANGE ON SOCIAL INSTITUTIONS GENERALLY AND HEALTH SERVICES IN PARTICULAR

SOCIAL ORGANIZATION AND INSTITUTIONS

The phenomena of growth and change are not peculiar to the health services only. Our economy and the educational system, for instance, must be geared to the needs of a growing population under changing circumstances. The need for change to adapt social institutions to the reality of modern times permeates all phases of our lives as individuals and as members of the community. It affects the most stable and static of our institutions, partly because the scientific and technological changes have been gaining momentum in recent years, but partly also because we, and perhaps generations before us, have steadfastly refused to face the need for change and to accept the fact that all human affairs are and will remain in a state of flux. Recognition and acceptance of this fact in all spheres of life, and especially of social life, may well spare mankind the violent eruptions of long pent up demands for change which have characterized history. There are hopeful signs that we are adopting the more realistic approach. Science - in Galileo's days subject to scrutiny by the Inquisition - has since been accepted as always being in a state of evolution, so that the axioms of today may be overthrown tomorrow. Even within their own sphere of dogma the churches today recognize that some tenets hitherto accepted as unalterable truths need to be re-examined and revised if the churches are to fulfil their role in modern times. These are changes which in the past would have taken centuries to carry out, and then they could not have occurred without major upheaval. That our educational system is undergoing great changes is natural in the wake of scientific developments; the changes are, however, designed not merely to keep up with the demand in the world of science but there is also growing concern with the need for the scientific specialist not to lose entirely contact with other disciplines and with basic human values. While the cost of school construction and operation is skyrocketing, there are also signs of rationalizing the school system, as, for instance, in the consolidation of rural schools. In international politics

we are making brave attempts through the United Nations to alter the ancient principle of right resulting only from might and thus have evolution replace the need for war and revolution.

Planning has become an accepted fact in economic policy, and the list of changes in our cherished institutions could be continued into the spheres of art, music, and even fashion.

Each area of social activity has its peculiar problems to solve. There are some aspects, however, which are common to several or all community services. One of these is the financing of these services as they increase in volume, complexity, and cost. Shifts occur here from the private to the public sector of the economy, and shifts become necessary also within the public sector from one level of government to another, generally from the municipal to the provincial and to the federal level. Regionalization is another of these emerging phenomena. It has become a by-word in hospital planning and will lose some of its controversial character if seen in the context of the general development of what hitherto have been considered to be strictly local and municipal functions. The causes for this trend lie partly in the shift of the financial burden but largely also in modern traffic and communications which have eroded the isolation and self-sufficiency of the local community. This is true not only for community services but also for the pattern of behaviour of the individual: his radius of shopping or seeking amusement, relaxation, and all kinds of other services has very much increased; he tends, for exemple, to take his business and other affairs to the larger center. Among the problems cutting across existing municipal boundaries are - besides hospitals schools, water supply, sewage disposal, transportation, industrial development, housing, urban and suburban land use, development of parks and other recreational facilities, and land use generally. Regionalization thus is not an issue confined to hospitals and other health services:

"The current concern with the region reflects the fact that there are pressing problems, existing and emerging, which require for their effective resolution the participation of a number of municipal governments. Conversely, this occupation with 'the region' may also represent a feeling or a belief on the part of some people that our existing municipal government structure is out-moded and must be replaced entirely with what is vaguely referred to as a 'regional government'."

It is only natural that the field of health services too should show signs of evolution and attempts to restrain, or compensate for, the many forces at work independently in various directions. Unlike other important fields of social activity, however, such as education, economics, or religion, the health services have been lacking the systematic study and guidance which has been evident in other areas. In Canada, the appointment of the Royal Commission on Health Services was the first step towards an over-all appraisal of the functioning of

Plunkett, T.J., "The County as a Possibility for Regional Government", Municipal World, September 1965, p. 292.

² Ibid.

the various components of the health services and their interrelationship. The hospital insurance scheme has led to a greater degree of evaluation and planning than has been evident in other types of service, but even here systematic research and the application of research findings have been slow in developing and asserting themselves against patterns inherited from a period with a vastly different social, economic, technological, and political structure.

The health services could not stay entirely aloof, however, from the changing world around them and new patterns have emerged here and there to deal with specific problems which had become acute, or as a result of individual or local initiative and the urge to experiment in order to find new and better ways of doing things.

All these observations apply not only to the actual operation of the various health services but particularly also to their financing. This subject has been dealt with extensively in the Report of the Royal Commission on Health Services and will be referred to in this study only in passing. It does provide a good example, however, of arising needs being only slowly recognized and also of remedial action originating from self-help measures of the consumers of services (e.g., fraternal societies), long before the providers of services and ultimately governments became aware of the need for broader and more systematic measures.

The social, financial, administrative, and technological changes occurring in all spheres of social activities should be borne in mind as forming the necessary background for the trends in certain health services discussed in the following pages.

THE HEALTH PROFESSIONS

The very fact that in speaking of professions in the plural we refer to a variety of disciplines is an expression of the great changes that have taken place since the days when "the" doctor was the one person one could consult in health matters and the one who could apply all the diagnostic devices and treatment known to medicine at the time. Scanning through the Report of the Royal Commission on Health Services we find some 30 different types of personnel mentioned, not counting specialties under various headings. It would be impossible to give an exact count of the number of health professions because this would depend on whether or not to include occupations like homemakers or ward aides, or, for instance, dietitians whose status as health workers would depend on whether they work in a hospital or in a cafeteria chain. Furthermore, new types of health workers

The terms "profession" and "professional" as used here include the professions in the narrower sense (characterized by higher education and "usually involving mental rather than manual work", as Webster's New World Dictionary defines them) and what are sometimes referred to as "occupations". Trying to distinguish between the two categories would be a fruitless exercise in semantics, as would be an attempt to define "paramedical" as including certain professions and excluding others. The important thing in both cases is to define the functions and required qualifications of each type of health personnel.

otten become identified as such only gradually as formal training programmes and licensing procedures are adopted.

What is to be stressed here is the existing and still growing multiplicity of health personnel resulting from scientific and technological specialization. The newer ones among these professions are fairly clearly circumscribed in their role within the health services complex and the content of their activity. It may be well, however, to glance at the changes that have occurred in the practice of the more traditional professions such as medical and dental practice, and nursing. Related are the changing respective roles of private and public health practice.

Medical Practice

The practice of medicine has undergone and continues to undergo many changes which relate to all aspects of medical practice: its content, its method, and the environment and administrative form in which it is performed. All these changes must be reflected in the education of the present and future medical practitioner.

The changes in the practice of medicine, furthermore, are part of the general social and scientific evolution, as aptly described by the American Medical Association:

"Medicine, like other disciplines, is undergoing a continuous evolution that began early in this century and has continued at an accelerating rate since the mid-1930's. This evolution is cultural, organizational, economic, scientific, political, psychological and personal. It cannot be divorced from the evolution of ideas and technological triumphs of the world in which it exists."

Content

The content of medical practice may be described as the health problems the physician encounters, the diseases and injuries he sees, and the number and type of his patients.

The chief health problems of today are the chronic and degenerative diseases which, over the last decades, have gradually been replacing the infectious diseases in importance. The example of mortality from tuberculosis on the one hand, and from cancer on the other, illustrates this change:

	Mortality rate per 100,000 population		Percentage change
	Average 1926-30	1963	
Tuberculosis	80.3 85.7	4.0 132.7	−95% +55%

Report of the Commission on the Cost of Medical Care, Vol. IV, Chicago: American Medical Association, 1964, p. 145.

Both rates were on a similar level 40 years ago. Since then, tuberculosis has almost disappeared as a cause of death - though not of morbidity - while the rate of mortality from cancer has increased by over 50 per cent. Some of the once dreaded infectious diseases have, in fact, become so rare that medical students and practising physicians may never encounter a case. The problems today in the field of infectious diseases are the venereal diseases, where treatment has become commonplace and prevention evolves as a social problem, and the still not fully understood wide range of virus diseases. The prevention of infective and parasitic diseases on a community basis has come to be regarded as the domain of government health services. Yet, while this remains true on a community basis, preventive measures aimed at the individual are to a growing extent being absorbed by the private physician. Although immunization, particularly of children, is still provided free of charge by health units, more people seek this type of service from their private physician because they can afford the customized service they prefer which is often also covered by prepayment arrangements. The same applies to well-mother and child care.

Because of the increased longevity resulting from effective measures against infant mortality and infectious diseases, more of the physician's patients are in the older age groups.

Areas previously considered to lie entirely within the sphere of social adjustment, subject to education or correction rather than health services, have been drawn into the medical field: alcoholism and drug addiction are examples of this. Society's main concern with mental illness used to be to protect itself from the mentally ill. But with mental illness becoming increasingly amenable to treatment, it has developed into one of the foremost health problems and is, at last, being accepted and recognized as a legitimate and integral part of the general health services. Among the profound changes in the field of mental health services is their integration into the main stream of health services which cannot but affect medical practice not only of the specialist but also of the general practitioner whose participation in the diagnosis and treatment of mental illness is expected to a growing extent.

The concept of treatment of disease and injury, once the main function of medical practice, has been extended in two directions. Prevention in the form of physical and mental fitness is gradually evolving as a responsibility of the health services, as is rehabilitation of the patient in terms of his medical as well as social rehabilitation. The physician thus becomes concerned not only with the medical but also the social manifestations of health and illness.

Because of scientific advance much more is known today about many conditions and the means of their prevention, diagnosis, and treatment. The pace of progress has been gaining momentum during the first half of this century which inevitably leads to greater specialization in all fields of science and particularly also in medicine. If our fathers and forefathers, their wives, and children went to

the one doctor with all their health problems, we find today not only that the various members of the family have their own doctor but consult different doctors for different ailments, either by self-referral or on being referred by another physician. Formal specialist medical training is relatively new in Canada, having started only in 1929.1 Yet, today over half of the active civilian physicians in Canada are specialists.² The fact that medical science is coming to know more and more about smaller and smaller groups of diseases and parts of the body is bound to lead to further specialization in a twofold way: first by further increasing the number of specialties from the approximately 30 now recognized; and second, by drawing more and more medical graduates into these specialties. But it is not only the scientific content of modern medical practice that attracts the budding physician into the specialties. Apart from a certain glamour connected with some of them, there are the very practical considerations of earnings and type of work. In 1960, the average net annual income of \$13,820 for general practitioners compared with \$18,730 for specialists. The general practitioner spends 23 per cent of total hours on home calls, the specialist 7 per cent; and the general practitioner spends about 3 times as much time on night calls as does the specialist.4 Policies regarding hospital privileges also may work against the general practitioner.

All these developments have led to a serious reappraisal of the respective roles of general practitioner and specialist in the framework of present and future health services. For one thing, medical specialization, like specialization in any other field, leads to fragmentation:

"... there is no doubt that the fragmentation medical practice has resulted in the fragmentation of the patient. The situation could easily develop to the point of 57 varieties of specialists but no doctor to treat the individual. The task of putting the patient together again — of reconstructing the 'whole man' — is an essential next step in the progress of medical practice."

The family doctor of old had the holistic approach we now try to restore. He knew the patient, his family, and their environment. It was this familiarity of the doctor with the people under his care, and their circumstances, which so fascinated Emily Carr in her physician when she was a child:

"Dr. Helmcken knew each part of everyone of us. He could have taken us to pieces and put us together again without mixing up any of our legs or noses or anything.", 6

¹ Judek, S., op. cit., p. 155.

² In 1961, 37.3 per cent were certified, and 13.8 per cent non-certified specialists (ibid., p. 156).

³ *Ibid.*, p. 221.

⁴ Ibid., p. 174.

⁵ Somers, H.M., and Somers, A.R., *Doctors, Patients and Health Insurance*, Washington, D.C.: The Brookings Institution, 1961, p. 33.

⁶ Carr, E., The Book of Small.

The fragmentation, however, is not quite as bad nor as clear-cut as it may appear at first glance. Some of the specialists like internists or paediatricians perform general practice for patients while they are under their care, although the personal touch that existed between the old family doctor and his patients may be lacking.

The general practitioner, on the other hand, also is changing his function thus coming closer to developing his practice, contradictory as it may sound, into something like a specialty of its own. A study undertaken by the Canadian Medical Association, dealing with general practice in Canada, found that "medicine had become so complicated and specialized that the general physician has become even more necessary than before as the patient's medical adviser, as well as personal doctor." Is it then going to be the main function of the general practitioner merely to advise the patient as to which specialist he should consult? Specialization, as we have seen, is likely to continue, but the more it progresses the greater will be the need for the medical practitioner who can follow the individual through the episodes of special care. In the field of mental health, for instance, greater participation by the personal physician is expected to supplement the services of the specialist. Many others of today's health problems are of a similar nature in that they require continued observation, follow-up, and care. The new emphasis on home care, community care, and an often prolonged chain of medical and social habilitation and rehabilitation services, underlines the need for a physician who can see a patient through the various stages and spells of care required particularly in chronic conditions.

The objectives of modern general practice thus seem to merge gradually with those of social medicine, preventive medicine, and the newly emerging concept of what traditionally has been referred to as public health. High standards of health care will continue to require medical specialties but more is needed than evernarrowing specialization; the general practitioners "should be encouraged to and be free to achieve their own standards of practice, comparable to those of the specialists". The establishment in 1954 of the College of General Practice of Canada was a first step in that direction.

To prepare the physician for these new tasks requires change of the content of his education. It also requires changes in the organization of medical practice lest the general practitioner or family physician of the future be completely overwhelmed by the task of providing continuing care, and care of high quality, to his patients. Group practice, organized home care, and well coordinated rehabilitation services may well be suited to provide the nucleus of the kind of organization the physician will have to have at his disposal.

¹ College of General Practice of Canada, brief submitted to the Royal Commission on Health Services, Toronto, 1962, pp. 5 and 6.

² Ibid.

Method

The methods of medical practice are the means by which new scientific knowledge is applied in the care of existing and newly emerging health problems and the changing types of patients displaying these problems. Changes in the methods of practice are also brought about by the advances in medical science. These advances and their rapid pace make continued education, in some form, essential to good practice. It is a process of learning the new and, no less important, un-learning the outdated.

The way in which the physician practises is characterized by new techniques, new drugs, new technical equipment at his disposal in the office, clinic, or hospital. It is also affected by the growing division of labour not only among medical practitioners but also between the physician and other health personnel. Whether or not the physician is in solo or group practice, he has to rely on other members of the health team if he is to apply the resources science has available for modern medical care. It means increasing emphasis on the science as opposed to the art of medicine. Even when the physician resumes some of his erstwhile function of being not only doctor but also friend and counsellor, it is done on the more scientific basis of psychiatric and social medicine training.

Today's physician can call on a variety of other health professionals to provide, on his instruction, certain services to his patients. What modern equipment for diagnosis or treatment he has not available at the office he can readily mobilize in laboratories and in the hospital. The fact that the hospital has become a vast repository of complex equipment is one of the attractions for taking patients to the hospital rather than treating them at home or at the office. The convenience from the doctor's point of view and the existence of hospital insurance are other factors encouraging hospitalization of the patient.

The high degree of specialization leads to an increasing amount of referral and consultation in the physician's practice.

Modern drugs have changed not only the effectiveness of the treatment of many conditions but also often substantially altered their management. Drug treatment may mean a course of treatment in the hospital or it may be an effective substitute for hospitalization.

The supervision of long-term treatment by drugs or of any other prolonged care of the patient at home is greatly facilitated by the availability of visiting nursing services, other health services often provided in the framework of organized home care, and other community services assisting in the patient's continued operation of his home. All this applies to treatment as well as to the varied services required in the rehabilitation of patients.

Environment

The environment and place in which the physician practises his profession is influenced substantially by the changing content and method of his practice. But it is also very much affected by the technological and social changes of the world around him.

Demographic trends characteristic of modern Canadian society apply also to the physician. This is true of the increasing longevity which benefits the physician more than other segments of the population because, as a professional, he is not limited in the duration of his practice by a rigid retirement age. Another trend is the general drift from rural to urban areas. As far as the general population is concerned, the trek to the city is due to the concentration of industry in urban centres and also the replacement of human resources by machines in the primary industries, notably agriculture. For the physician the urban environment means access to larger and better equipped hospitals and laboratory facilities, closer contact with more of his confrères, and for the specialist it also means a sufficient market for his practice; all this in addition to the amenities and attractions of the city. Hence, the urbanization of medical practice is still more pronounced than that of the general population. Communities with less than 10,000 population had 41 per cent of the population in 1962, but only 14 per cent of the active civilian physicians. Centres with 10,000 population on the other hand, which had 59 per cent of the population, had 86 per cent of the physicians. The fact that the urban centre tends to monopolize some of the medical resources is tempered for those remaining in the rural setting, by the availability of better, faster, and cheaper transportation facilitating easier access to health facilities in the city. Furthermore, these facilities can provide a higher quality of care than could be provided in small rural communities.

To the physician, wherever he may reside and practise, the modern means of transportation imply easier access to his patients and, more important still, of being called on by them. The telephone enables the physician to take care of minor and routine matters in a less time-consuming way than by personal contact. This, as well as faster and more convenient transportation than before, may also have a bearing on reducing the relative importance of home calls in medical practice.

In the sparsely settled areas, and particularly in the North, it is only through the modern means of transportation and communication that medical care can be provided at all.

The social environment in which modern medical practice operates also has been undergoing changes, and with it the personal relationship between doctor and patient. To the extent that scientific methods are supplanting the art aspect of medicine, they also change the role of the physician from that of a friend and father confessor to that of a scientific consultant who, at best, discusses the

¹ Judek, S., op. cit., p. 131.

patient's health problems on a technical or scientific basis. The emergence of the new type of general practitioner or family physician may reverse that trend, but the specialist's relationship with his patient is likely to remain on a scientific rather than personal basis.

This relationship is also affected by the social changes in the community at large. Before the education explosion following the last War and gaining momentum ever since, the doctor was one of the few professionals in the community. Besides him, there were only the priest or minister, the judge and lawyer, and perhaps the bank manager. They formed the elite in the towns like Mariposa, so delightfully described by Stephen Leacock in his Sunshine Sketches of a Little Town. It was only natural that these professionals, as the only educated people about town, were looked up to as authorities not only in their own sphere but in human affairs generally. Today, however, there are many others in the community who have an education at least equal to that of the selected few of old. The old notion lingers only in certain legal requirements where, for instance, something has to be certified by a person of professional status. If, for example, one applies for a Canadian passport, the guarantor can only be one of a selected few - doctor, minister, bank manager among them - regardless of the fact that the physical and social sciences have been producing many other professionals of at least equal standing and, presumably, responsibility. All these are among the patients of the physician today and it is, therefore, no longer a matter of the patient looking up in awe to the physician as the ignorant approaching a man who has been through university and knows the ways of the world. The modern physician must expect his patient to be his match in regard to education though it be in a different field.

It would be a mistake to assume that the growing application in medical practice of scientific methods as well as modern business procedures is eliminating altogether the personal element from medicine. This may be true to some extent of the personal relationship between the doctor and patient, but in other respects the weight of personal judgment and responsibility on the physician's part has, if anything, increased. Today's medical science provides the physician more than ever before with means of extending life, albeit within limits. This, together with the simultaneous increase in lingering chronic illness and survival of what may be termed marginal lives with severe and permanent impairments, confronts the physician with the frequent dilemma of having to choose between prolonging life and suffering, or letting nature take its course.

What has been said here describes general trends. In practice, one has to bear in mind that physicians, like any other group of people, differ greatly among themselves. This applies to their attitude towards their profession, their patients, and their community; and it applies also to their professional training which, in turn, may affect their orientation depending on where and when it was received. Thus, there will be differences between the older and the younger generation of physicians, between general practitioners and specialists, between solo and group practitioners, and other groups.

Organization

All the changes which have taken place in the practice of medicine during recent decades, as well as modern business methods and requirements generally, are having their effect on the way the physician's practice is organized and operated from the administrative point of view.

Thus the business end of medical practice has undergone substantial changes. Although the ratio of population per physician has not changed too much since the turn of the century, it can be assumed that more people now consult their doctor, and do it more often, which alone would increase the need for more and better bookkeeping and records. Higher incomes and higher expenditures work in the same direction. The financial operation of the medical "plant" has become more complex with greater demand for premises, personnel, and equipment. Not only are better records required for the care of the patient, which often extends over long periods of time, but also for insurance and legal purposes, as well as for tax returns.

Health insurance and prepayment arrangements for or by the patients alter accounting practices and add to the paperwork. Where the responsibility for payment of fees remains with the patient, physicians often use collecting agencies for their outstanding accounts. If the physician of today needs a wide range of auxiliary services to practise good medicine, he also has to rely increasingly on outside help with his administrative and financial problems. This means office staff and office equipment for his own practice, or it may lead to various arrangements of sharing the administrative and/or financial load with some of his colleagues. Arrangements of this sort are found in the various forms of partnerships and group practice.

Both for reasons of professional practice as well as the administrative demands on the modern physician, there are increasing signs of independent solo practice gradually giving way to new forms. This process has been slow so far and there may be a number of reasons for this. One may be that medical education does not prepare the graduate for working in close association with his colleagues and that he fears interference with the way he runs his practice and conducts his business. Another reason is, no doubt, the lack of guidance and encouragement for the practising physician to enter into closer professional and business association with other practitioners.

The distribution of physicians has something to do with changing forms of practice also. Mention has been made of the concentration of physicians, particularly specialists, in the urban centres. There we find the offices of general practitioners widely distributed, largely following the pattern of the resident population. Zoning by-laws usually exempt physicians' offices from the restrictions imposed on residential areas because their proximity and ready availability is important to

¹ It was 972 population—per—physician in 1901, and 857 in 1961. (Judek, S., op. cit., p. 24).

their clientele. Even here the modern fast means of transportation have considerably increased the range of the practitioner so that his office can be more distant without impairing his ready availability. We thus find general practitioners grouping together at strategic points, sometimes only sharing an office building but sometimes also extending the partnership into shared personnel, waiting rooms, and other facilities.

For the specialists the pattern is somewhat different. Because of the more selective subject matter of their practice they can serve a larger population. Also, their practice is generally conducted at the office and hospital with a minimum of house calls, which still account for a substantial part of the general practitioner's work and time. Their offices can, therefore, be located more centrally, in many cases down town in "doctors buildings", "medical arts buildings" and the like, again with varying arrangements of sharing personnel and office facilities.

Different forms of partnership are a logical next step for both general practitioner and specialist. The medical group or clinic is a further development. It combines a number of specialties, paramedical personnel, and possibly laboratory and X-ray facilities under one roof in a partnership extending to the administrative as well as the professional side of medical practice.

The phenomenon of medical group practice has been the subject of a special study prepared for the Royal Commission on Health Services by Boan.¹ It was also discussed within the framework of the Commission's research programme by Judek in connection with medical manpower problems in Canada.² It will suffice here to sketch very briefly how group practice may affect the practice of medicine. Pending a more definite and comprehensive evaluation of group practice, however, it must be realized that some of the statements made in regard to group practice may be saying the obvious, while others reflect concepts one may have of its functioning without definite evidence that the image of group practice corresponds to the actual facts. But even if group practice does not actually do all the things it is said to do, one can assume that it could be organized to fulfil such expectations.

What matters in the context of this study is the change that occurs or could occur when physicians group together to jointly carry out certain aspects of their practice. In discussing emerging patterns it is of interest to see what group practice might do, as well as to know what it actually does.

In some cases the results of collaboration are only very loose, limited, and often informal arrangements exist such as those for substitution during the absence or incapacity of one of the partners, or for the sharing of premises or other

¹ Boan, J.A., op. cit.

² Judek, S., op. cit., pp. 204-214.

See also the conclusions which resulted from a comparative study of group and independent practice in Ontario (Sellers, E.M., "The Influences of Group and Independent General Practice on Patient Care: A Comparative Study in Ontario", Canadian Medical Association Journal, July 24, 1965, pp. 147-157).

facilities. These may be extended to other administrative and financial aspects of the practice, and eventually also to its professional content. At the other end of this wide range of joint undertakings is the medical group or clinic which, by definition, includes more than one medical field, possibly also ancillary services, and operates under some definite arrangement regarding the finances of the group.

Thus, whatever the motives for establishing a particular group may be, this type of organization constitutes an approach towards a badly needed synthesis of the proliferating medical specialties. A common record system and ease of referral and consultation can restore some of the holistic approach to medicine which is lost where independent specialists care for various health problems of the same person. It means for the patient the convenience of "one stop" medical care and greater assurance of continued care and, for the reasons stated below, possibly also higher quality of care.

The physician joining the group relinquishes some of his independence in the professional and financial operation of his practice. Whether this is an advantage or disadvantage will depend largely on the individual circumstances. Working in close proximity and under a certain amount of scrutiny of one's colleagues could be regarded by some as undue interference, but by others as a welcome opportunity for consultation and professional intercourse. Which it will turn out to be depends on the outlook of the individual member as well as the attitude and philosophy of the group. Participation in a group offers greater freedom in regard to the time the individual member has to be available for house calls and emergencies; it facilitates absence for recreation or study; and it also can provide greater opportunity for research, all of which is likely to improve the quality of care provided.

Regarding the relative financial merits of solo versus group practice, a survey undertaken in Canada in 1962 showed operating costs per physician to be higher in group than in solo practice, but capital expenditures to be lower. The higher operating costs for group members are, at least partly, explained by the fact that the group physician has about twice as many auxiliary personnel than his counterpart in solo practice.

The way the patient pays his medical care fees is not affected by whether it is solo or group practice: it may be on a fee-for-service basis, through insurance, or some combination of these. The remuneration of the physician in the group may follow a variety of patterns: there may be a sharing of net income either equally or by a point rating system; it may be on a salary basis; or it may be on a fee-for-service method. Various combinations occur of these methods of remunerating the physician. It becomes clear that under some group arrangements, the way

¹ Judek, S., op. cit., p. 238.

² Ibid., pp. 244 and 245.

³ Ibid., p. 243.

the patient pays has no bearing on the way the physician receives his remuneration. The patient may be paying on a fee-for-service basis but the physician receives his remuneration in salary form or as a profit share; on the other hand, the patient may pay a fixed premium or tax, and the physician be remunerated on a fee-for-service basis.¹

Group practice has been gaining ground slowly in Canada but its pace may well be accelerated in the future, especially if means are adopted to systematically stimulate its development. It means for the physician closer association with his colleagues and thus the benefits of shared knowledge; implicitly it results in the acceptance of various forms and degrees of professional audit which, however, also have existed for some time in the operation of medical service plans including workmen's compensation, and increasingly, in the physician's practice in the hospital. Group practice also tends to continue the trend commenced by the various prepayment devices to divorce the method of remunerating the physician from the mode of payment by the patient.

Dentists

Much of what has been said about the effect of scientific, demographic, and social change on the practice of medicine applies also to dentistry which was the subject of three studies undertaken on behalf of the Royal Commission on Health Services.²

It was only in the mid-19th century that dentistry in Canada began to emerge as a profession. The Canadian Dental Association was formed in 1902. The early dental schools developed outside of, though usually with some connection with, universities. Unlike their European colleagues who graduate from the medical school, dentists in North America are trained in schools of dentistry which are entities separate from the medical school. Dentistry thus has always remained apart from the main stream of general health services. In this respect it resembles somewhat the traditional position of mental and tuberculosis services but differs from these two branches in that these are provided by physicians, nurses, and other health personnel with a general medical background. The integration of the education of all health professions in health sciences centres will no doubt bring dentistry closer to the other branches of health care. A step in that direction would

Regarding the respective cost to the patient, the Commission on the Cost of Medical Care of the American Medical Association found no significant difference between solo and group practice, nor between the hospital cost under the two systems of practice ("Report of the Commission on the Cost of Medical Care", VI. 1, Chicago: The Association, p. 89).

² McFarlane, B.A., Dental Manpower in Canada, study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer 1965; Hall, O., Utilization of Dentists in Canada, study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer 1965; Paynter, K.J., op. cit.

³ McFarlane, op. cit., pp. 5 and 6.

⁴ Ibid., p. 13.

be the establishment of departments of dentistry in all major general hospitals as recommended by the Royal Commission on Health Services.

But while dentistry undisputedly forms an integral part of the health services complex it is the only such service not subject to the general direction by a physician. The full competence of the dentist within his field has not been challenged but there are areas where the borderlines between dentistry and medicine are blurred and where a meeting of these two disciplines is becoming essential for an adequate health service. In regard to the hospital situation the Royal Commission on Health Services suggests that important advances could be made through a team approach of an oral surgeon, orthodontist, and medical and/or dental specialists and paramedical personnel.² Such a team approach would prove equally fruitful in dealing with oral health outside the hospital, and the medical clinic or community health centre of the future may well provide a suitable setting for closer dental and medical collaboration.

The scientific and technical advances have changed dental practice in many respects and, as in medicine, have sparked specialization within the dental profession as well as the development of new types of technical personnel. Since dentistry covers a narrower field, it is not surprising that the specialization has not reached the same degree as in medicine. In 1961, only 3.6 per cent of Canadian dentists practised a recognized specialty, but only four specialties are now certified while an equal number of others is practised.³

Another factor that distinguishes dentistry from medical practice is that the individual has an attitude towards dental illness which differs from his attitude towards other illnesses. Dental illness is generally not fatal; while it may be very painful, the pain can usually be relieved by extraction. And though the loss of teeth may entail serious consequences for the general well-being, these consequences are often very subtle and not easily recognized. As a result, dental care is generally thought of as being more selective than other types of health care. This may be among the reasons why prepayment plans have failed to develop as they did for other types of health care.

As in medical practice, there is evidence that dentists also often pool their resources to share administrative or professional demands on their practice. Here, too, there are many stages and degrees of pooling but 70 per cent of dentists still retain their independent practice. One survey found that in 11 out of 216 dental practices an arrangement existed for shared space, facilities, as well as patients, but these included hospital and other clinics, husband-wife and fatherson teams as well as other forms of partnership.⁴

¹ Royal Commission on Health Services, Volume 1, Ottawa: Queen's Printer 1964, p. 39.

² Ibid.

Hall, O., op. cit., p. 8.

Hall, O., op. cit., pp. 11 and 12.

Among the means of spreading dental resources over a larger area are the maintenance by one dentist of several offices in different locations, and the travelling clinic, which is generally under the auspices of a public agency.

The employment by dentists of auxiliary personnel has gone a long way in enabling the all too few dentists in Canada to increase their output. The dentist who employs such personnel is "able to provide a much greater number of treatment services than the assistant-less dentist".1 The dentist with from 2.5 to 3.4 employees can give about two and a half times as many treatment services as the dentist without assistants.2 A further great change both in the role of the dentist and in his productivity would result from the employment of dental auxiliaries as envisaged by the Royal Commission on Health Services for its proposed dental care programme for children.3 While the immediate motive for considering the development of this type of personnel is the great shortage of dentists, it would follow a pattern which emerges in many fields and particularly so also in other health services. The development of modern techniques and equipment has reached a stage where its fullest use requires a disproportionate part of the time of health professionals such as physicians, dentists, nurses, and others. Greater efficiency is introduced if these techniques and equipment are handled by people trained and experienced in their use. This is a step towards the badly needed division of labour which has already found application in the emergence of the various kinds of technicians, therapists, or nursing assistants, and which has already existed for a long time in the field of vision and hearing care. The various auxiliary and technical disciplines mentioned differ considerably in the degree of education and training they require and hence in the extent to which they are qualified to work on the patient directly. Because the dental auxiliaries recommended by the Commission would, in addition to providing dental health education, also prepare and fill cavities, their training would take place under supervision of a dental school and they would practise their skills in close proximity to and under supervision of a dentist. The Royal Commission sets a ratio of four auxiliaries to one dentist as the desirable goal in the implementation of its dental programme for children.4

The dental auxiliary as described here would differ from the present dental technician who, not unlike the optician in vision care, prepares prostheses and appliances on the basis of written prescriptions from the dentist. The technician does not work in close proximity to the dentist and does not treat the patient directly. The auxiliary on the other hand would assume certain functions of the existing dental hygienist whose range of activities varies but could include such

¹ McFarlane, B.A., op. cit., p. 171.

² Ibid., quoting Canadian Dental Association, "Survey of Dental Practice 1958".

³ Royal Commission on Health Services, op. cit., pp. 75-77.

⁴ *Ibid.*, p. 573.

⁵ The Michigan Study, as quoted by McFarlane, B.A., op. cit., p. 163.

clinical services as the application of prophylaxis and topical fluorides as well as taking impressions for dentures, certain X-ray and laboratory procedures, and dental health education. The duties of the present chair-side assistant range from secretarial and office duties to assisting the dentist in the treatment of the patient by preparing instruments, equipment and materials.

Even with the existing auxiliary personnel, it has been observed that the productivity of the dentist, measured in terms of mean net income, increases where several dental chairs and assistants are used; the peak was found to be reached with three dental chairs and two assistants.³

Nursing

The term "nurse" or "nursing" has so many meanings, that the time has come when a new term is necessary to identify what is usually referred to as the graduate or registered nurse. Even in this narrower category more distinctive terms seem desirable as new and clearly distinct types of nursing and training for nursing develop. No matter how we may try to define it, the term will always retain the connotation of a specifically female activity, a meaning which can be traced back to the original meaning of suckling or nourishing an infant. Then it also became someone, again a woman or girl, who looked after a child or any person who needed some help or care because of age, sickness, or any other circumstances. More specifically, the sick nurse too has traditionally been a woman from the days when religious orders took up nursing as a charitable duty, and later when Florence Nightingale established nursing as a profession based on formal training. Today's science of nursing has remained largely a female prerogative and the term "male nurse" will continue to sound contradictory.

In order to distinguish the modern science and profession of nursing from the traditional connotations of the nursery and the kind of home nursing which is mainly self-help of a patient's family and homemaking for the sick, and also in order to remove the "stigma" of it being essentially a female occupation, the nursing profession might find a new name for itself and the various forms which nursing based on formal training may take in the future.

Various aspects of nursing in Canada are covered quite extensively in the studies undertaken for the Royal Commission on Health Services.⁴

¹ McFarlane, B.A. op. cit., pp. 153 and 154.

² *Ibid.*, p. 160.

³ Canadian Dental Association, as quoted by McFarlane, B.A., op. cit., p. 172.

⁴ Mussallem, H.K., op. cit.

Robson, R.A., Sociological Factors Affecting Recruitment into the Nursing Profession, study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer (in print).

Like the content of medical practice, that of nursing has changed. Both the diseases and the type of patients encountered by the nurse have changed: the former towards more chronic disease, the latter towards older people and people with different social characteristics such as education, income and occupation.

The way the nurse practises her profession has also changed. As the hospital assumed its position as the health services centre in the community, more and more nurses were drawn from independent private practice into the hospital. Medical practice also has gravitated towards the hospital but while the physician follows his patient in and out of the hospital, the hospital nurse has become a member of the staff of the hospital, so that nursing care in and out of the hospital is provided by different nurses. Most of those practising outside the hospital have also given up their independence and work for public or private agencies or individual employers.

This shift from the independent practice of nursing towards employment in the hospital or elsewhere is vividly illustrated by the figures for a 30-year period:

	Per cent	
Field of Nursing	1930	1960
Private Duty	60	9
Hospital and Schools of Nursing	25	59
Public and Occupational Health	15	7
Other and Unspecified Fields and Inactive Nurses	N. A.	25
	100	100

The lack of data for the residual group in 1930 blurs the picture but it can probably be safely assumed that the number of qualified nurses was very small in 1930 in areas where nurses have been employed in later years not directly related to the provision of nursing care, e.g., in doctors' offices, as air line hostesses, etc. The proportion of inactive nurses within this category may well have been reduced because of the increasing employment of active nurses who are married. Between 1951 and 1961 the proportion of married active nurses rose from 25 to 47 per cent, reflecting the general trend in the employment of married women.²

In interpreting the decrease in the proportion of nurses in public health and in industry it must be borne in mind that these are percentage figures; the absolute number of nurses in these fields has more than trebled in the period from 1930 to 1960, having risen from 1,521 to 5,109.³

Working conditions for nurses have improved along with employment conditions in the general labour force. The fact that nurses continue to work or return to

¹ Royal Commission on Health Services, op. cit., p. 272.

² Based on *ibid.*, p. 270.

³ Ibid., p. 272.

work after marriage is due partly to the social circumstances motivating married women to seek work, matched by the demand for nurses. The employment of married nurses has, however, brought about the adjustment of working conditions to their needs, such as rearrangements in the shift mechanism and even provision of nurseries for their children.

The importance of the hospital in today's community health services is reflected in the high proportion of the nursing force employed in hospitals; about 60 per cent of all nurses work in this field. It is not surprising, therefore, that the image of nursing, and the recruitment and education leading up to it, are largely hospital oriented.

It would be difficult to predict how the hospital-centred role of nursing may shift in the wake of changing patterns in health care. There are too many forces at work to anticipate in quantitative terms their net effect on nursing needs in the hospital relative to other fields of nursing. The hospital itself is undergoing changes in the type of services it provides and in the way it discharges its function by new design in the construction and layout of the building, the use of new equipment and progressive automation, and the employment of new categories of personnel. The nursing profession itself is being split into the diploma nurse with short but intensive technical training aimed at bedside nursing in the hospital, and the university trained nurse who would be qualified for senior positions, research, and teaching. In addition, there are the several types of auxiliary nursing personnel such as the nursing assistants, as well as the various technicians and various categories of aides without formal training for their particular tasks. The need for the psychiatric nurse, now trained in the four western provinces in three-year training programmes, may well be altered and probably substantially reduced with the integration of psychiatric services into the general health services. On the other hand, psychiatric training will receive more emphasis in the nursing education programme generally.

Apart from the changes within the hospital and within the nursing profession, the development of care in the community outside the hospital is going to affect the demand for nurses, both as regards their numbers and the type of care they are to provide and for which they must be trained.

A shift from institutional to community care of psychiatric disorders and the development of organized home care programmes will require more health personnel outside the hospital. The nurse with public health training is, besides the physi-

The term "public health nurse" is avoided here because it has at least two different connotations. It may refer to the employing agency in which case the public health nurse is one employed by a public health department, performing the largely preventive public health functions and/or bedside nursing on a visiting basis. The term is also used by some to describe the visiting bedside nurse who does not perform the other public health functions, (e.g., the nurses of the Victorian Order of Nurses). Visiting bedside nursing is done under the direction of the attending physician, whereas other public health functions are under the supervision of the health department.

cian, the main force in a home care programme, but here again the demand is difficult to quantify because as home care programmes develop, they use increasing numbers of other health and welfare personnel available in the community thus relieving to a certain extent the public health nurse. Much more study of home care programmes is needed before all their requirements can be properly assessed. Here, as in the hospital, small beginnings have been made in the use of nursing assistants which also will affect the need for qualified nurses.

Hospital nursing itself is undergoing a certain degree of specialization; apart from the psychiatric nurse, there is the paediatric nurse, the obstetric nurse, the operating room nurse, and others. Outside the hospital, there are really two distinct types: 1) the public health nurse performing the functions traditionally associated with public health work (prevention, education, counselling, case finding, follow-up), entirely within the framework of the health department, and 2) the visiting nurse providing bedside care. Hence, recruitment and education should be directed towards three basic types of nursing: i) in the hospital, ii) under the health department, iii) visiting nursing as part of or adjunct to the personal medical care provided outside the hospital.

It would appear that the visiting nurse, whether employed by a health department or a voluntary agency, performs a type of work that is distinctly different from the work of the hospital nurse or the public health nurse in the narrower traditional sense of the term, although she shares with both certain aspects of her duties. Like the hospital nurse, the visiting nurse works with the attending physician on the whole range of conditions subject to medical care. She differs from the hospital nurse in that she lacks the ready access to the personnel and physical resources of the hospital, and that working more independently she has to rely more on her own initiative and resourcefulness. She shares with the "public health" nurse the close contact with the patients in their home environment and hence their social problems, but differs from her in that she must be prepared to provide actual care and share her experience with all other members of the home care team. A special group within this category are the nurses in nursing stations in outlying areas, particularly in the North, who are still further removed from the physician on the one hand auxiliary resources on the other. There, it is the nurse, and not the physician, who attends people; in most cases the physician is available only for consultation by radiophone, often over hundreds of miles. The visiting nurse must be familiar not only with the curative but also with the preventive aspects of health care as well as with rehabilitation procedures.

Because of her key position in the community health services, Dr. Candau, Director General of the World Health Organization, in his World Health Day Message of 1954, could say of the nurse that "her importance in local health work and in community life is second to none".

The various newly emerging aspects of visiting nursing, as opposed to the older types of nursing in the hospital or health department, should receive more

attention in the nursing educational programmes. They may well constitute a subject of a new specialty or discipline which would stand much to gain by drawing on the experience in this field of the organizations which have pioneered in this kind of service in Canada.¹

Regarding the respective role of the nurse in relation to other members of the health team, it appears that this relation is fairly clearly defined in regard to the nurse's auxiliaries. The clear understanding here, at least in theory, is probably due to the fact that these auxiliaries are of relatively recent origin and their establishment and content of training have been planned from the beginning so as to facilitate a clear-cut division of labour.

The same cannot be said, however, concerning the role of the nurse in relation to that of the physician. Although it is assumed that with improved training and the delegation of some routine activities to her auxiliaries the nurse can and often does assume responsibility for certain procedures which previously have been the physician's prerogative², this has never been satisfactorily clarified. This puts the nurse often into the awkward as well as legally dangerous position of having to perform procedures in certain situations according to her best knowledge and conscience, but without the necessary authority and without such procedures being included in her formal training. It can be expected that the growing demand for physicians' services and newly developing techniques will widen the area where the adequately trained nurse could be relied upon to apply certain procedures. It appears, therefore, highly desirable for the two professions concerned to come to a clear understanding regarding the most effective use of their respective resources in their own best interest as well as that of their patients.

The Hospital

Like the physician, the hospital has been exposed to the dynamics of rapid scientific, technical, and social development. The hospital reflects the resulting changes perhaps more than any other component of the health services complex because it must adapt itself to the changing patterns in all health disciplines as

The largest and national organization of the Victorian Order of Nurses for Canada since 1897, the Saint Elizabeth Visiting Nurses Association since 1908, and the Société des Infirmières Visiteuses since 1937. The national office of the Victorian Order of Nurses, for instance, has been the only agency providing leadership in the systematic development of home care on a national basis in Canada. Because of its responsible association with various organized home care plans, the training of nurses and provision of administrators, it is in a unique position to provide the kind of technical guidance whose absence is so noticeable in the case of medical group practice. The need is for the training of personnel to meet the particular requirements of home nursing as well as for the organizational and administrative framework. In the latter respect, the Order has prepared a manual for establishing home care programmes, which constitutes a first step in the direction towards something like a college of home care.

² "Physicians are delegating increased responsibilities to the professional nurse. World War II gave impetus to the use of nurses for carrying out certain procedures ... formerly performed by the physician", (U.S. Department of Health, Education, and Welfare, Toward Quality in Nursing, Needs and Goals, Washington: United States Government Printing Office 1963, p. 4).

well as to the demographic and social trends of urbanization, to new methods of construction and architectural design, and to new ways of financing. Hospitals, more than any other type of health services in Canada, have felt the full impact of prepayment arrangements as well as the resulting public concern with their planning and operation. The Hospital Insurance and Diagnostic Services scheme, the National Health Grants Programme, and the trend towards regionalization apparent in all community services have supplemented, if not largely supplanted, private and local initiative in the planning and operation of hospitals.

Changing morbidity patterns and the gradual integration into a general hospital system of the hitherto separated mental, tuberculosis and possibly also some dental services, lead to a reorientation of modern hospital care. Contradictory as it may sound, past successes of health services in the control of communicable diseases are partly responsible for a greater demand today on hospital services for the diagnosis, treatment, and rehabilitation in chronic disease. Accidents, as an important cause of morbidity and mortality, also make new and different demands on the hospital as well as on such ancillary institutions as the ambulance services. While chronic and degenerative diseases are not synonymous with geriatric care, they are largely characteristic of the health problems of the aged and thus imply a demand for geriatric care facilities. Long-term care and new and effective rehabilitation methods aimed at restoring the patient to a maximum of independence, often imply the need for continuing care stressing the need for integration or closest coordination of the hospital with the facilities and agencies dispensing health care to patients before admission to, and after discharge from, the hospital.

The need for continuing care has already caused the partitions separating care in the hospital and outside it to crumble, or at least to crack. Closer relationship between out- and in-patient care, hospital-centred home care plans, day or night care for in-patients, and intermittent hospitalization are part of this trend. In-patients are released sometimes to go home over weekends and holidays, practices which had existed for some time in mental institutions and which are now becoming evident also in general hospitals. Thus, being on the books of a hospital does no longer mean that the patient is actually within the four walls of the hospital. Developments such as these have not only administrative implications; they will also require adaptation to these more fluid forms of hospitalization of the statistics used for the interpretation and evaluation of hospital services: data on admissions, readmissions, length of stay, per diem cost, and others take on a different meaning depending on the extent to which they reflect the in-between stages of hospitalization.

Better health in some respects does not, therefore, necessarily bring about economic savings. Similarly, the same shift of emphasis from communicable to chronic and degenerative diseases, the resulting aging of the population, availability of more effective treatment and the awareness thereof, as well as the removal of financial barriers may well also increase the indirect economic cost of industrial absenteeism though all the circumstances mentioned are due to the effectiveness of health services.

The extension of the services of the hospital into the community, and of the community into the hospital through social workers, community-centred home care plans and various referral arrangements have also important implications on the financing of health services. As long as a universal prepayment or insurance scheme covers only one phase of the health services, it has two undesirable consequences: first, it makes for the artificial isolation and compartmentalization of that one type of service, and second, it encourages the use of this type of service even where equally good or better alternatives are available but without insurance coverage. In the hospital field, the lack of an equivalent to the Hospital Insurance and Diagnostic Services Act to cover services outside the hospital certainly has these effects, but it is by no means the only reason for the slow integration of the hospital with other community services. In fact, the newly emerging patterns described have developed in spite of the restricting effect of the hospital insurance scheme; the Ontario Hospital Services Commission, for instance, has joined forces with the community home care plan in Toronto to develop organized home care as an adjunct to in-hospital care.

As was observed in the case of medical group practice, there is no systematic plan to encourage and develop new forms of care in conjunction with the hospital. Hence, the necessary alternative facilities are not always available nor is their use fully understood and accepted by physicians or patients.

All these changes in and around the hospital have been accompanied by similarly profound changes in the nature and method of hospital care itself. These changes have transformed the erstwhile place of shelter and primitive asylum for the sick into the modern depository of scientific equipment for the effective diagnosis, treatment, and rehabilitation of the sick. This applies to the care of the patient as well as to the organizational and administrative aspects of hospital care.

The hospital benefits from mechanization and automation to the same extent as industry and business. This trend affects the procedures used in the care of the patient, such as the various monitoring devices, as well as the methods of data processing in the keeping and analysis of records, and in the accounting department. The greatest impact on the operation and evaluation of the various services provided by the hospital will probably result from the application of computer techniques to the study of these services and activities, and particularly to the diagnosis of patients' conditions. Electronic data processing can efficiently handle masses of data with cross-classifications and linkage with other records, which would have been beyond the scope of traditional equipment and personnel. The result is not only increased administrative insight into the operation of the hospital system and individual institutions but also the possibility of comparing and thus evaluating the results of different treatment methods and procedures. On the management side of hospital operation, modern equipment can perform the traditional clerical tasks faster, more completely, and more thoroughly or scientifically. Examples are the regular office operations as well as such new tasks as

the planning of the operation of the dietary department from menu planning to the production of shopping lists, the allocation of nursing staff, and other functions.

The growing complexity, costliness, and specialization of hospitals has far reaching effects not only on the individual institution but also on the structure of the entire hospital system. To run a modern hospital or a system of hospitals requires knowledge and qualifications which can no longer be acquired in adequate measure merely through apprenticeship or practical experience; it requires formal study and preparation. The hospital administrator must be familiar with the health objectives of the hospital, as well as with all its administrative and financial aspects, and its role in the community. The hospital administrator has become the forerunner of the newly emerged discipline of health services administration which encompasses the whole wide range of health agencies and institutions.

As long as hospitals in various communities were very much alike in the basic services they provided — accommodating the sick, providing some simple regimen and largely custodial nursing service, and perhaps facilities for minor common surgery — they differed mainly in size, according to the population served. For this reason and also because travel was difficult, time consuming, and risky for the sick, it was natural for every community to aim at having a hospital, preferably within its own boundaries; and indeed there was a need for a local hospital even if it was only a small institution with ten or twenty beds. It was also logical to leave the planning, financing, and construction of the hospital, as well as its operation, to the pride and initiative of the local community.

The modern hospital, however, has outgrown this early concept. Like many other community services, it no longer fits into the traditional pattern but requires serious re-evaluation. What constitutes a well-equipped hospital today transcends the financial capacity of many municipalities, nor can much of the costly up-to-date equipment be used efficiently to serve small populations. This leads to regional planning similar to that observed in the planning and the resulting consolidation of schools, churches, and other institutions. In the larger centres, this type of planning means taking into account the needs of the surrounding areas, as well as a division of labour among the local hospitals in respect to certain types of complex equipment and services.

Regionalization would not be possible, however, had modern transportation and communication not at the same time facilitated travel so that many patients can be brought safely to a strategically located hospital outside their own community. This means a trend towards a certain centralization of hospital services, particularly as far as the active treatment hospital is concerned. It also emphasizes the growing importance of transportation services, including ambulances both surface and air, as an essential part of the health services.

Not all the trends are towards greater centralization, however. There is also a certain movement away from the large central institution, particularly where it

is a matter of long-term hospital care rather than active treatment. The reappraisal of mental care appears to bring about the breaking up of the large mental hospital into smaller institutions closer to general treatment facilities and the patient's home and community. Similar considerations apply to patients suffering from other prolonged illness and not requiring intensive care.

The role of the modern hospital is not confined to the treatment of patients and the diagnosis of illness. It has also become a basic institution for the education and training of the health professions, so much so in fact that present day medical and nursing education emphasize hospital care to the detriment of care in the home and community environment. This perpetuates the notion that illness of any consequence can be treated adequately only in the hospital and that a patient must automatically be admitted to a hospital for diagnostic procedures. The image thus created of the hospital probably accounts as much as any other factor for the pressure on the hospital even where equally good or even better care could be obtained outside. Education in the hospital setting remains essential, of course, but it must be balanced more effectively than is now the case by familiarizing the student with the available alternative facilities. The combination of teaching and service functions in the hospital has rendered difficult a clearcut separation of these functions and the respective financial responsibility. The service function of teaching hospitals has been recognized by the Royal Commission on Health Services which recommended that certain of their costs, including part of the salary of faculty staff, be interpreted as shareable cost under the Hospital Insurance and Diagnostic Services Act. On the other hand, hospitals will have to compensate for the loss of nurses in training once this training is separated from the service function of the hospital.

The growing cost of hospital construction and operation and the consequent involvement of senior governments in the provision of the necessary funds are contributing to the gradual removal of hospital planning from the local community. It is inevitable that under a system of regionalization the municipality no longer has as strong a voice as it had in the past with regard to the question whether it should have a hospital, and if so what size it should be and what services it should provide. Once, however, the wishes of the local municipality are subordinated to planning at higher levels, it becomes necessary to reappraise the existing structure of financing as it pertains to the part played by local fund-raising. The smaller community can no longer be expected to show the same readiness to raise funds for a hospital to be built elsewhere; nor can the larger town or city be assumed to shoulder all of the cost of an institution which is to serve also other areas. Regionalization also affects the size of the hospital. It will mean the eventual disappearance of the small outpost hospitals and an increase in the size of the base hospitals at various levels up to the maximum that will allow for effective and efficient management.

¹ Royal Commission on Health Services, op. cit., p. 56.

An examination of the varying types of hospitals shows signs of both specialization on the one hand, and integration on the other. Certain types of hospitals, such as the contagious disease hospital, have disappeared as separate institutions, their reduced functions being absorbed by the general hospital. There are no longer hospitals for incurables because of the changing concepts of incurability, the stigma attached to the name and the fact that even where incurability is accepted, active painkilling and life-prolonging treatment is often applied; to the extent that chronic disease hospitals, nursing homes, and similar institutions have assumed the functions of the old hospital for incurables, the wide range of rehabilitation procedures now available has drastically changed the treatment of these conditions. Mental hospitals still exist, though not by that name¹, but here too there is the already mentioned trend towards treatment in the general hospital or in close association with it, and community care. A similar situation exists in regard to the tuberculosis hospital or sanatorium which has come to serve many other purposes while the treatment of tuberculosis is being integrated into the general health services. On the other hand, the increasing load of chronic illness, the high cost of, and the growing demand on, active treatment hospitals have combined to intensify the need for institutions designed to provide long-term care where the specialized facilities of the general hospital are not required. Convalescent and chronic hospitals are designed to supply this care, in conjunction with nursing homes and similar institutions. A new element in the services provided by these institutions is the emphasis on rehabilitation. A new type of institution is the rehabilitation centre, serving both in-patients and out-patients.

The changes in the relationship of the general hospital with other institutions and agencies are accompanied by a major transformation within its own four walls. The specialization in medical practice is reflected in the departmental organization of the hospital, and the scientific and technological advances have increased the range of services provided.

New wings in the general hospital or satellite institutions in close proximity to the hospital take the place of separate institutions for psychiatric care, infectious diseases, paediatrics, chronic disease, rehabilitation, and other branches of medicine.

In many cases the patient is typed and consequently assigned to the corresponding type of hospital or ward of a hospital. Of late, however, the hospital has become more flexible and adjusted its services to the progressively changing needs of the same patient. The result is progressive patient care where the services are adapted to the requirements at various stages of the same illness in the

Institutions and services for "crippled" children seem to remain the only ones where the organization, or at least the naming, has not attempted to remove all connotation of a possible stigma or hopelessness. Surely here too some other name would help to brighten the outlook for the patients and their kin without destroying or diminishing the degree of sympathy on the part of the public, considered necessary for fund-raising purposes.

same patient, from the most intensive active care to the stage of ambulation. The logical projection is continuing care in the out-patient department, by referral system, or by organized home care.

If changing patterns of medical practice have affected the hospital, so has the evolution of the modern hospital altered patterns of medical care. The facilities and services offered by the hospital have become an essential factor in the practice of good medicine so that hospital staff privileges are a necessary prerequisite for the physician who is seriously handicapped if he cannot obtain these privileges. The progressive specialization in medicine has made it difficult for the general practitioner to retain or gain a foothold in some hospitals. The hospital can provide a meeting ground for specialists and general practitioners, a situation which seldom exists except in context of medical group practice. In other respects also the hospital helps to establish a closer relationship between physicians through the various hospital committees, refresher courses, lectures, seminars, and similar professional exchange. To a growing extent, such bodies as tissue- or admission-discharge committees provide a forum for medical audit and consultation, all of which have the effect of not only achieving the most effective use of hospital facilities but also of stimulating high quality of medical care.

The importance of the hospital in the practice of modern medicine in Canada is indicated by the substantial proportion of the doctor's patients seen and time spent at the hospital. A survey of medical practice undertaken by the Royal Commission on Health Services revealed the following pattern:

Percentage of Physicians' Practice Taking Place in Hospital, Canada, 1962

Type of Practice	Visits	Hours*
General Practitioner	24.4%	21.8%
Specialist	45.8%	41.5%
Consultant	60.5%	49.2%

^{*}Exclusive of time spent in teaching and research.

The general practitioner makes about one-quarter of his calls at the hospital where he spends over one-fifth of his time with patients. For the specialist, and particularly the consultant, the hospital is the place of practice for about half the calls and half the time these practitioners spend with their patients. In his survey of general practitioners, Clute found that in Ontario 20.7 per cent, and in Nova Scotia 30.7 per cent of the doctors' visits took place in the hospital. Obviously, the hospital has substantially replaced the patient's home as the place where the doctor sees his patients apart from his office. The hospital is important to the

¹ Royal Commission on Health Services, Questionnaire Survey of Medical Practice, 1962.

² Clute, K.F., The General Practitioner, Toronto, University of Toronto Press 1963, p. 244.

physician mainly for the services available there, but it is also more convenient for the physician to have non-ambulant patients in the hospital. Clute found among those he surveyed no general practitioner without hospital privileges, but over half with privileges in more than one hospital.

In its study of the trends in medical and hospital care, the Commission on the Cost of Medical Care of the American Medical Association notes that the emphasis in modern medicine is on prevention, early detection and prompt treatment of disease. The reduction in the average length of hospital stay from 11.1 days in 1946 to 8.4 days in 1961, as found by the Commission, results mainly from the shortening of the stay for surgical diagnoses (from 17.9 to 12.7 days), ascribed to the application of early ambulation. Early ambulation, referred to elsewhere as a factor in the rehabilitation process, is traced back to the experience during and after World War II. Because it has such a pronounced effect on hospital utilization, some of the comments by the above-mentioned Commission are of interest:

"Early ambulation is a major factor in the dramatic change in hospital length of stay. The concept began to be generally recognized as a physiological principle of good postoperative care soon after World War II. It was praticularly useful in preventing postoperative pneumonia, phlebothrombosis and atelectasis. It was quickly adopted by obstetricians, since early ambulation is possible in persons who are essentially in good health and are recovering from the specific trauma of childbirth or surgical operation. It was also adopted in surgical cases since the majority of surgery is elective and the surgeon prefers to do an operation under optimum conditions of nutrition, weight, freedom from infection and cardiac status. Medical admissions are, on the other hand, generally ill people, and admission is less likely to be elective. Here, the principle of rest for the injured tissue is important. It would therefore be expected that early ambulation would affect length of stay primarily in the operative and obstetrical cases, a hypothesis consistently borne out by the analyses.

Decrease in length of stay in medical illnesses as contrasted with surgical illnesses depends primarily upon prompt and effective control of the illness. Examples of such shortened lengths of stay include antibiotic control of infections; anticoagulant management of phlebitis, cerebral vascular insufficiency and myocardial infarction; effective diuresis with diet, digitalis and diuretics in arteriosclerotic, rheumatic and hypertensive heart disease; anticholinergic, antacid and dietary control of duodenal ulcer." ⁴

The same study contains the following illustrations of the changing pattern in hospital care during the period 1946 to 1961:

¹ Ibid., p. 116.

² Report of the Commission on the Cost of Medical Care, Vol. IV, Chicago: American Medical Association 1964. pp. 146 and 147.

³ *Ibid.*, p. 26.

⁴ Ibid., pp. 146 and 147.

⁵ Based on *Ibid.*, Vol. I, p. 145 and 148.

Percentage Increase in the Use of Selected Hospital Services (1946 = 100)

	1946	1961
Laboratory	100	199
Drugs	100	156
X-ray (diagnostic and therapeutic)	100	279

Mean Age of Admissions

Year	Age
1946	35.9
1961	40.7

Utilization of Selected Hospital Services Per Admission

	1946	1961	Increase %
Mean number of different generic drugs	4.67	7.30	56
Mean units of laboratory procedures	3.19	6.36	50
Mean units of diagnostic X-ray procedures	1.50	4.42	195
Mean units of therapeutic X-ray procedures	0.10	0.04	60
Mean number of times operating room	0.49	0.43	- 12
Mean number of formal pathology	0.20	0.26	30
Mean number of consultations	0,06	0.15	150

Hospital care accounted in 1961 for about 56 per cent of the total expenditure on personal health care in Canada, or an amount of \$924 million.¹ The cost of hospital services must be expected to continue to rise, both in the aggregate and on a per-unit basis. The only chance for reversing this trend would come from some unlikely drastic reduction in the demand for hospital care due either to radically new treatment methods not requiring hospitalization, from sharply reduced morbidity, or greater use of alternative facilities, though mechanization may also bring about some savings. Rising aggregate costs will result from population growth and improved diagnostic, treatment, and rehabilitation techniques drawing more patients into the hospital. Per diem costs will continue to rise in line with rising general price levels and also with the use of more complex equipment and more specialized personnel. Some of these factors will also cause capital costs to rise.

Nor must it be overlooked that rapid technological advance also means accelerated obsolescence of the hospital plant and equipment. As long as the hospital remained a place mainly to accommodate the sick providing little more than a

Department of National Health and Welfare, Expenditures on Personal Health Care in Canada 1953-1961, Ottawa: The Department, 1963, pp. 5 and 8.

bed, some nursing care, and the housekeeping services, the four walls of the hospital were its main asset and as long as they lasted, the hospital remained adequate with some normal upkeep and periodic minor renovations. Under these circumstances hospitals could remain serviceable for 40 or 50 years, and even longer. The rapid pace of advance of modern technology has changed this dramatically. It affects the equipment used in the hospital and the plant as well since it is increasingly designed for the most effective use of specific equipment. Computers, for instance, may be obsolete in a matter of months; they often are in fact obsolete as soon as they come on the market. The fast obsolescence is a fact which our affluent society has accepted in industry, transportation, communications, and other technologyintensive areas. Aircraft and airports are abandoned though still serviceable as soon as newer models and designs are available. There we are willing to pay the high price for having the best and newest available. In the case of hospitals we are often more hesitant and cautious, and maintain obsolete mental institutions, tuberculosis sanatoria, and even general hospitals despite the fact that they are no longer conducive to good treatment by modern standards. It may well be that we are too extravagant in regard to other amenities by which we judge our standard of living and, of course, there can be extravagance in hospital construction and equipment too, against which careful planning is the only guard. The old mental institutions, sanatoria, the small outpost hospitals, and other institutions have not been wasted, they were built according to the needs of the times and the best knowledge then available, and they have served their purpose. The high cost of obsolescence can be reduced if the planning of new institutions takes into account possible alternative uses when the premises can no longer fulfil effectively their original purpose. The design of mental institutions for possible use as housing units or other community purposes is an example of such foresight.

Government Health Services

This heading is intended to cover what many would probably refer to as "public health services". This term, however, has come to mean many different things to different people which renders it difficult to discuss it without creating misunderstandings. The very diversity of the meanings of public health indicates, however, the changes these services have undergone and the shifting of their functions in Canada's health services complex of today. Their development is more fully described in Hasting's study prepared for the Royal Commission on Health Services.¹ They are briefly reviewed here because they still provide, and will continue to provide, some of the essential and very complex preventive services with which public health was originally identified. They have been providing a certain amount of personal health services, and they form an important link in the system of community services.

In this context then, the discussion is concerned mainly with actual services provided by public agencies rather than the part played by governments in the

¹ Hastings, J.E.F., op. cit.

general regulation and financing of health services. Furthermore, the emphasis is mainly on services provided to the general population rather than those extended as statutory obligations to such groups as the armed forces, veterans, mariners, or the quasi-statutory services to Indians and Eskimos. Regarding the latter groups it should be noted, nevertheless, that important steps may be under way to integrate the health services hitherto provided by the federal government with the local health services within the provinces. In the Territories where all services are administered by the federal government, it would appear that the health services for the Indians and Eskimos there would follow whatever pattern may develop as the Territories' approach to self-government. To ensure to these groups adequate health services is of the utmost importance because of their peculiar grave health problems largely due to their poor environment. Steps to raise the general level of economic and social community development in these areas must accompany the health services for the latter to become fully effective. These are specific problems requiring specific solutions distinct in nature, scope, and above all, urgency, from the organizational problems in most parts of the provinces.

In regard to Indians and Eskimos, as in large areas of the North generally, the public health service is the only health service available. The same situation prevails in many other countries where either the political structure is such that the state operates all essential services, or where the degree of economic and social development has not yet been able to produce private institutions and health personnel and where, at the same time, most of the people would not have the means to support health services.

The emergence of government concern with health matters, beyond that of local charity for the indigent sick, can be traced back to the early epidemics of cholera, smallpox, and typhus in the eastern provinces and along the St. Lawrence River during the first half of the 19th century. As a result, boards of health with provincial or local jurisdiction were established, in most cases only for the duration of the emergency. In British Columbia it was an outbreak of smallpox in 1892 which led to the appointment of a provincial health officer. In the Prairie Provinces, particularly after completion of the transcontinental railway link around the turn of the century, the main problem was one of providing basic health services to a scattered agricultural population, and health was seen in close conjunction with agriculture before it came into its own right. Manitoba established a Department of Agriculture, Immigration, Statistics, and Health in 1883. Similarly, before the establishment of the provinces of Saskatchewan and Alberta, public health services were administered in the Northwest Territories (Assiniboia, Saskatchewan, and Alberta) by the Department of Agriculture under a public health ordinance.

¹ The cost of these services to the provinces will be less of a problem once a universal health services programme becomes operative. During the transition period a health grants programme may be one way of easing the transfer of the financial responsibility.

² The historic data based on *The Federal and Provincial Health Services in Canada*, ed. R.D. Defries, Toronto: Canadian Public Health Association 1962.

The provincial and local boards of health in the eastern provinces were as short-lived as the epidemics they were to cope with. It is interesting to note that in 1849 the Parliament of the United Canadas, i.e., Upper and Lower Canada, passed an Act establishing a Central Board of Health which provided that whenever the province or any part thereof was seriously threatened with an outbreak of any contagious disease, the Governor might by proclamation declare the Act to be in force in the whole province or in any part thereof. These temporary and, in the days of slow and difficult travel, local health problems were not thought of as matters of sufficient permanent concern of governments at any level to mention them or health as such specifically when the British North America Act was drafted. In the Prairie Provinces, it was, as noted, the primary concern of governments in the health field to bring essential health services to scattered agricultural settlements and provide for their financing. In Alberta and Saskatchewan, legislative provision was made for the combining of towns, villages, and rural municipalities into hospital districts for the purpose of building and maintaining hospitals. In 1914, the municipality of Samia, near Regina, in Saskatchewan, about to lose its doctor, offered him an annual retainer fee as an inducement for him to stay. This led in 1916 to an amendment in the Rural Municipality Act facilitating the development of the Municipal Doctor System, and eventually to the various public health insurance schemes.2 These are illustrations of the early beginnings of government interest in health matters in Canada.

This illustrates at once the wide range of meanings attached today to the term public health. In its original meaning it comprised services directed at and implemented by the community rather than the individual. These were quarantine measures, sanitation, safe water supply, etc., which were public both in respect of the administering agency, usually part of local government, and in regard to the nature of the service which was not aimed at the individual directly but at the community or population group as a whole. An element of personal service was injected with the application to individuals of immunization procedures and with maternity and well-baby and child care. Subsequently, public agencies began to assume responsibility for health services considered necessary for the protection of the community but too complex or costly for private initiative to provide or obtain; mental and tuberculosis services fall into this category. Gradually the concept of public interest in the health of its individual members widened from the narrow criterion of self-protection of the community to the broader one of assisting the individual patient as well as the provider of services in cases where the cost and complexity of modern diagnostic and treatment techniques were beyond the resources of individuals. Maternity care, including delivery, and diagnosis and treatment of cancer are examples of this kind of extended public concern for private health. The public participation here has taken largely the form of financing the particular services, a concept which gradually developed into the various

¹ The historic data based on *The Federal and Provincial Health Services in Canada*, ed. R.D. Defries, Toronto: Canadian Public Health Association 1962, p. 137.

² See also Royal Commission on Health Services, Vol. I, op. cit., Ch. 10.

phases of public health insurance. But we also see the public health nurses in British Columbia and to a lesser extent in other provinces provide bedside care, a personal health service hitherto considered as lying outside the domaine of health department activities. The public agency has thus extended its activities far into the field of personal service. On the other hand, however, the private and personal health services have been assuming some of the tasks which were previously considered to lie entirely in the province of public health. Private physicians are providing immunizations and well-mother and child care to a greater extent than they used to, a development facilitated by the growth of prepayment coverage. Psychiatric care too is increasingly sought and provided in the context of private practice. Chemotherapy in tuberculosis involves the private practitioner increasingly in the care of the tuberculous. Private medical practice has also been taking greater interest in matters of health maintenance and prevention. This manifests itself in the newly emerging pattern of general practice, the personal or family physician of tomorrow, and the entire concept of the practice of social medicine which considers the whole patient in his environment.

As a result of all these developments preventive health services are no longer the prerogative of the public agency, nor personal health services entirely a matter of private practice. Public health then is no longer synonymous with preventive and environmental health, nor does it leave personal services entirely to private health services. The old distinction between public and private health thus no longer holds and we are on firmer ground in evaluating the part played or to be played by the public agency if we classify the services into public and private by their auspices rather than by their content.

A new element has been added to the vanishing borderlines between public and private or personal health services by new concepts of community care. Visiting bedside nursing by public health nurses has already been mentioned. The meaning of "community" in this context is again not clear-cut and leads to misunderstanding. Community health services may mean the total of all health services in the community including the hospital, or the term is frequently used to describe the services in the community outside the hospital. To organize community health services in this narrower sense is by some seen as a future function of public health agencies, although there is nothing in the nature of these services that would make them more suitable for administration by government rather than some other agency. The epidemiological method, developed as an important tool in traditional public health to study the distribution and etiology of communicable diseases, has found wider application and is now used in the field of chronic disease, accidents, and other aspects of health which are now taking the place of the largely controlled communicable diseases as major health problems. Thus, epidemiology and the production of the statistics essential for its study, have been looked upon as essentially public health activities to be adapted to the newly arising needs.

¹ Matters of sanitation, water supply, control of air pollution, and others have shifted into the area of engineering rather than health.

There is a danger that the controversy over the future role of public health, preventive, and social medicine, general practice, and community services will degenerate into a fruitless battle of semantics. The needs for all these disciplines is obvious. It is also evident that they must be geared to the newly emerging health problems as well as to the old ones in the light of modern knowledge. The role of the general practitioner as well as of the medical officer of health has been the subject of soul searching and reappraisal. Both have been described as either obsolete or as the very hub of the health services to come. There are definite and important fields of activities for them in the framework of the future health services if their education and training is such as to prepare them for their new tasks. There will also be a growing need for the health services administrator of the future. The contents of these new disciplines either have been or can be defined, and curricula of study exist and are being developed. It would probably help to clear the air in regard to the position of public health and the medical officer of the future, if it were made clear that the training in a school of public health does not necessarily lead to government employment. A nurse with public health training can be either a public health nurse employed by a health department or she may work as a visiting nurse with a private agency. A health services administrator may be, but does not necessarily have to be, a medical officer of health or, for that matter, a physician at all, as long as he has the knowledge and qualifications required in the modern administration of health services. If we continue to use the term public health despite its changed and blurred meaning, it should be made abundantly clear that it is not synonymous with government service, just as government health services are no longer confined to what used to be considered as public health.1

In reviewing present-day government activities, it is well to remember that the old public health problem of threatening epidemics still exists. It is only the continued existence and effectiveness of communicable disease control measures which now effectively keeps these diseases from entering the country or contain cases so that major outbreaks are avoided. This activity must remain a major task of government health services.

Government activities have become much more diversified, however. Like all health services, those provided by governments have become more complex and much more costly to an extent that neither local nor provincial governments could adequately finance them under present arrangements without financial support by the federal government. Intensified interprovincial migration and travel together with modern means of transportation have brought the provinces a good deal closer together than they were when the two Canadas, situated along the St. Lawrence, provided for a Central Board of Health. There is close cooperation among the provincial health departments with the federal department facilitating the liaison not only through consultation in regard to federally supported programmes, but also in the general area of health administration through the Dominion

An interesting contribution to this subject is contained in two recent British publications: Anderson, J.A.D., A New Look at Social Medicine, London: Pitman Medical Publishing Co. 1965; and Bothwell, P.W., A New Look at Preventive Medicine, London: Pitman Medical Publishing Co. 1965.

Council of Health. Tangible evidence of these efforts to make e pluribus unum in the health field are not only the federally assisted programmes but also the striking similarity if not uniformity in provincial health legislation.¹

The degree to which local health units and urban health departments provide personal health services varies with the socio-economic status of the population of the area, the availability of private health personnel and facilities, and also with the basic policy of the provincial health department. The services are basically of a preventive nature and may include child, maternal and school health, communicable disease control and sanitation. In some areas, as already mentioned, the public health nurse also provides bedside nursing on a visiting basis. The range of services and activities depends very largely on the personal initiative of the medical officer and his success, in turn, will be determined by his relationship with other practitioners and agencies in the community or area. The medical officer thus may take a leading part in establishing a home care programme, dental or chronic disease prevention, and a variety of other activities even within the seemingly narrow area of preventive services. The cost of the local health units is shared between the participating municipalities and the province, with federal assistance under the National Health Grants Programme for the expansion of such services.

The organization and extent of activities of provincial health departments vary similarly. They all provide guidance and supervision of local health unit activities, as well as consultation in technical matters through their specialized divisions dealing with such matters as environmental health, communicable disease control, maternal and child health, dental health, health education, nutrition, laboratories, research and statistics, health services to selected population groups, health grant administration, mental health, tuberculosis, industrial hygiene, nursing and others. The relationship between the provincial health departments and public health insurance plans varies from direct control by the department to separate and independent commissions being responsible for the administration of the insurance programme. The responsibility for the coordination of rehabilitation services may also rest with the provincial department of health.

Separate and independent from the provincial health departments are the Workmen's Compensation Boards of the provinces. Because of its separation from the health administration as such, and also because of its narrow limitation to occupational disease and injury, workmen's compensation has not received the attention it deserves as an institution administering, providing, and financing health care including the provision of income maintenance payments. Within its sphere of activity, workmen's compensation provides comprehensive coverage covering all possible needs for health care and financial assistance during disability. It represents a smoothly working blend of public and private care, of legislative provisions and their practical application emphasizing the spirit rather than

¹ Kohn, R., The Health Status of the Canadian People, a study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer (in print), Appendix B.

the letter of the law, and of pooling and sharing the risks. Ontario Workmen's Compensation Act, passed in 1915 and the first such Act in Canada, has been in force now for half a century and, despite the complete authority for its administration being vested in a Board consisting of a majority of lay members, seems to have secured the full cooperation of the medical profession, employers who pay for the operation of the scheme, and employees. The secret lies in the fact that the all-powerful Board uses effective review procedures, but primarily the usually harmonious working of the scheme can be ascribed to the willingness of all concerned to make it work once legislation had established the basic principles. Apart from providing a model for a working relationship within a health care scheme, workmen's compensation has made major contributions to the development of rehabilitation in Canada. The Ontario Workmen's Compensation Board pioneered in the field of physical rehabilitation as early as 1932 and extends its services now into the various stages of vocational rehabilitation.

The Health Branch of the federal Department of National Health and Welfare largely parallels the organizational divisions of the provincial departments, in addition to the divisions required to fulfil its own statutory obligations including the administration of the National Health Grants and the Hospital Insurance and Diagnostic Services Programme. Thus, the Department operates the Food and Drug Directorate including the Narcotic Control Division, and also the Laboratory of Hygiene to conduct research, provide consultation to the provinces and an inspection service for biological products. In addition to divisions corresponding to those of provincial departments, it has divisions for Civil Aviation Medicine, Public Health Engineering, Hospital Design, and Radiation Protection.

SPECIALIZATION AND INTEGRATION

IMPLICATIONS OF CHANGING PATTERNS

The foregoing chapter sketched some of the changes that have occurred, and continue to occur at an accelerated rate, in the basic elements which form the health services complex in the community. Similar illustrations could be added for other components of this complex. Particular stress was laid on the observed proliferation of existing health professions and services, and the emergence of new types, as progress demands greater specialization and formal training in specific fields which consequently become identified as new disciplines. Specialization thus has provided the means by which the health professions and health agencies have been able to absorb the growing body of scientific and technical knowledge. As a result Canada's health personnel and agencies today are among the most competent to be found anywhere. Physicians, dentists, nurses, members of the health professions are, on the whole, well qualified to render their particular service, as the hospitals and other facilities are well equipped for their particular tasks. Yet, is this competence and proficiency applied effectively or as effectively as possible?

In discussing each type of service, we have proceeded on one plane as it were, disregarding the fact that we must add a third dimension. Even the appraisal of individual types of personnel or services could not be entirely oblivious of changes in one area bringing about corresponding changes in others: e.g., changing patterns in the practice of medicine stimulate changes in hospital care and vice versa. The Terms of Reference of the Royal Commission refer not merely to this particular service or that but to health services as such, and the Commission refers to the subject of its inquiry as the health services complex. Since the individual services interact upon and also supplement one another in the care of the patient, the whole complex is more than the sum total of its component parts and, therefore, its functioning can be fully appraised only by adding this third dimension of observation. This is being attempted in the following pages. It will be demonstrated that the few and simple services available in earlier days ensured total and continuing care such as then existed. Today, however, having progressed so rapidly and so far in medical science and technology, a deliberate effort is

needed to supplement the successful development of each particular service by a corresponding understanding and systematic guidance of their interaction.

Increasing specialization renders proper co-ordination at once more difficult and more imperative as well as urgent. These factors have been at play in the development of health services in Canada since, almost a century ago, she emerged as a nation. A brief review of this evolution from the uncomplicated idyll then to the complex health industry of today will illustrate what has been lost while knowledge was gained. It will also be possible to detect the germs of efforts here and there to bring together again the proliferated parts of our health services into one focus, i.e., the doctor and his patient.

FROM THE IDYLL TO THE HEALTH INDUSTRY

The services have developed in accordance with recognized needs and the resources available to satisfy these needs. In the more populated areas there would be a doctor available who, in one person, represented general practice and what specialized knowledge existed then. He was the family physician, paediatrician, gynaecologist, and psychiatrist all in one. Most of the medication he dispensed and equipment he needed could be carried in his bag. The doctor's office at Upper Canada Village was a living room or study rather than an office in the modern sense of the term. What treatment methods were known, could be applied either at his office or when bedrest was indicated, in the patient's home. The doctor's fee would by and large depend on the patient's ability to pay. For his visits to patients scattered in rural areas, the doctor had to get his buggy ready or travel on horseback for many miles on primitive roads, exposed to the weather and other hazards of travel in those days. When, early in the 19th century, the Rideau Canal was built, there were two physicians attached to the construction operations. Dr. Robinson, the assistant surgeon, wrote to Colonel By on July 18, 1830, to ask "if he could have an extra supply of forage for his horse since he was having to ride through bush frequently in order to visit a man at Long Falls who was seriously ill''. Private practitioners, however, had to make their own arrangements for travel in the bush and along prairie roads. The patient's home was more likely than not as clean and sanitary as any place could be made. There was usually ample room in the farm or town house to accommodate the patient and some member of the large family would always be available to tend to the sick. There would be someone around to look after the grandparents when they needed it, and granny was there or not far away, when mother was in childbed or sick.

While this was the rule, there were some unfortunate sick people without either the home or the family to accommodate their needs. These, likely, were often cases of incurable illness and for them a place had to be found in the hospital. Mental illness was regarded very much like criminal behaviour as an asocial manifestation, the main concern being to disengage the sufferer from the community.

¹ Legget, R., Rideau Waterway, Toronto: University of Toronto Press 1955, p. 51.

There was nothing in this picture that would indicate any serious problem for the individual or the family. Nor was there any problem as far as the community was concerned except for providing the hospitals on the same basis as other charitable needs were met. The picture, however, contains the roots for our modern basic services and tracing their development will at once illustrate the problems we are facing today.

For one thing, the idyllic picture we have painted of mid-eighteenth century health services was shattered now and again by violent outbreaks of such epidemic diseases as cholera, smallpox, and others. When this happened, community action was required and it was the occurrence of epidemics which brought about the establishment of public health agencies.

Like other phenomena inherent in our modern industrial and largely urban society — such as unemployment and the problems of income security — health care in those early days was something that created no problems beyond the family, or at most the local community, both of which enjoyed a high degree of self-sufficiency in the economic as well as the broader social sense.

In comparison with the modern multiplicity and complexity of services we may consider those early days as primitive with little regret over their passing. Yet, it is worth remembering that the health care then contained certain principles which were lost during the spectacular developments of the ensuing decades; one of our main concerns today is to reinstate these principles. For one thing, the doctor cared for the patient as a whole and beyond that for the family as a whole, without the fragmentation of their health problems into a number of more or less self-contained specialties. Furthermore, the home with its familiar environment was the place where, with few exceptions, the patient received any care not provided at the doctor's office.

Tracing briefly the development of the early elements and methods of health care will help in the understanding of the present situation. It will also explain why health and health care which were not even mentioned as such in the British North America Act are today a matter of concern to governments, requiring the services of a Royal Commission to point the way towards a solution.

In the early days of Canada's nationhood most of the technological devices we are now taking for granted did not exist or were in their earliest beginnings only. There were no motor vehicles, airplanes, rockets, telephones, radio, television; there was no thought of isotopes or electronics. Roentgen and Osler were on the threshold of their career, Pasteur was in his forties. Florence Nightingale had begun to convince society that nursing of the sick required not only charity and good intentions but systematic training. It was the time when the ground was laid for many of the scientific and technological advances which had such a profound effect on the fabric of our society and all its activities. Medical science, aided by physics and chemistry, were at the forefront of

progress which equally affected all branches of learning. As more and wider fields opened up, only specialized knowledge could press the advance in any of the many new directions.

Consequently the doctor's work as well as the institution which was really only a forerunner of today's hospital, had to be subdivided into new forms to keep pace with the developments. The work of the doctor was to be channelled into some 30 specialties of today. Hospitals grew from the charitable, largely custodial institutions into the gleaming — and costly — health factories of today as repositories of complex technical and laboratory equipment being brought to bear on the patient.

The third element in the early pattern of health care, the home and family, also has undergone great changes. The old family encompassing several generations in one home or in close proximity and largely self-sufficient in all matters - cultural, social, economical - was moved from the rural or small town setting into industrialized cities. This weakened family ties and the interdependence of all members of the family. City dwelling leaves no room for grandparents or grandchildren. Besides, grandparents nowadays are "disengaged" and are left with little to contribute to the running of the urban home. There is no spinning to do, or no elaborate cooking. Babies are born in the hospital and the hospital is the place for the seriously ill, partly because the environment of the modern city home cannot cope with serious illness, and partly also because the hospital has outgrown its role of a place where people go only to live out their life or illness. One no longer goes to hospital to die, or in the case of mental illness or tuberculosis to remain cooped up, but more likely than not one expects to be out again after a short time. Early ambulation, active rehabilitation, and the pressure on the hospital, as well as its cost, combine to shorten the hospital stay.

The health problems too have changed. The acute attacks and epidemics of infectious diseases have more and more given way to the more lingering chronic diseases requiring different kinds of care and facilities.

Apart from the ramifications of the old elements of health services, new types of health services developed such as the laboratories for diagnosis, treatment or research. The concept of rehabilitation has drawn a number of other services into the health field and the same happened to a number of community services needed to assist the modern family and the patient in coping with illness in our modern society.

Specialization and the resulting fragmentation of medical service have brought about a situation where not only children and each parent consult different doctors, but each member of the family may well take their various complaints to different specialists. Gone is the care of the whole patient, instead we have the benefit of everything modern medical science can provide for specific problems. Whether that means that the art of medicine has given way to the science, and

whether seeing the patient in his environment has become primarily the function of another specialist, the psychiatrist, remains to be seen. One branch of medicine, dentistry, has developed into a profession of its own.

The modern hospital has become a very complex institution whose planning, construction and operation has turned into a major administrative and economic problem. Like the services provided by the hospital today, most of the other modern health services were unknown even a few decades ago. The modern drugs provide a spectacular example. Similarly unknown were the substantial costs of health services as we know them today, as well as the problems arising out of these services to governments on all levels and to other community organizations.

The community became increasingly concerned with, and involved, in the organization of health services. Charity and voluntary organizations extended their field of activity, partly demonstrating the need for, and the feasibility of, projects later to be taken on by government.

Public health originally concerned with the protection of the public from the spread of infectious diseases found new fields of activity such as general preventive measures including health education and health supervision of mothers and children. Gradually governments had to concern themselves with providing treatment to individuals, something contrary to the old concept of public health. The lengthy institutional care once required for tuberculosis has to be financed by the provincial governments if patients were to be expected to complete their treatment and avoid spreading the disease. Similar problems led to similar developments in the fiels of mental hospital care. Cancer diagnosis and treatment followed, as did services to certain population groups such as the assistance recipients. Various methods of financing health services, such as voluntary prepayment, had their effect on the demand for these services. The advent of the national hospital insurance programme is only a further step in the growing involvement of the community in the organization of health services.

In addition to the development of mew occupations, the old ones are branching out in many different directions though still connected to the same root. But the courses of education leading to an "M.D." or "R.N.", which once completed a physician's or nurse's education, serve now in many cases only as the basis for formal post-graduate training and the kind of formal or informal continued education any professional and technician requires to keep abreast with new scientific development on an ever broadening front.

It has furthermore become apparent in the discussion of health professions, hospitals, and government services that no single type of health service can be reviewed without reference to other health services or without regard to the changes in the community at large. Medical practice has relied increasingly on the hospital which, in turn, must adapt to the needs arising in the modern practice of medicine. The nursing profession has been adjusting to the new role of the

hospital, the nursing needs outside the hospital, as well as to changing demands on its services arising from new medical methods and techniques. Even the dental profession, which by reasons of its subject matter and the separate training received, always has kept apart from other health services, is now being drawn closer to them. Nor has it been possible to talk about health services without reference to other community services, particularly those in the welfare field.

DEVELOPING FORMS OF INTEGRATION

This growing interdependence has not gone entirely unnoticed by the providers of health services. Although in North America there has been no interference or guidance — whichever way one may interpret it — by the state in how health services should be planned and organized, the various professions and agencies involved have themselves begun to experiment with new patterns of organization. Voluntary effort could always be counted on to detect gaps and unmet needs for service, and voluntary organizations have been prominent in experimenting with new ways of establishing liaison among the various types of service in the community. Referral and home care plans pioneered by the Victorian Order of Nurses and other visiting nurses agencies, rehabilitation centres and clinics are among the more recent invaluable contributions by voluntary agencies in the field of community services.

The trend towards greater specialization must be expected to continue. It is the inevitable result of growing knowledge, advanced scientific techniques, and expanding resources in dealing with ill health. As such, specialization is an indication of remarkable progress. Yet, this very progress has also created many problems which grow with the complexity of health services.

While the practice of medicine is becoming more and more specialized, there is at the same time a growing recognition of the need for treating the whole man and not just a specific symptom, disease, or impairment. The emergence of human ecology and social medicine has helped in developing a concept of care which not only looks at the whole patient but also takes into account his functioning within a particular environment or situation. The social sciences are drawn increasingly into the orbit of medical investigation.

While scientific knowledge and equipment are applied in every phase of our health services, there also has been a growing awareness that all may not be well with the way things have been going: whereas much has been gained by the steady transformation of medicine from an art to a science, something was lost in the process, something that was there in the early days when we were less

¹ The implementation of the Hospital Insurance and Diagnostic Services Act has inevitably led to a more systematic evaluation of hospital services and hence gradually to some more integrated planning.

efficient perhaps and medical care in many ways was less effective. This something is the simplicity of seeking and providing the care and services needed without disturbing the familiar home environment in which care is given. The doctor in the olden days automatically cared for the whole patient whom he knew in his environment; whatever other services were needed and existed could easily be made available. This has been lost in the process of specialization in medical science and fragmentation of services. The once existing close doctorpatient relationship, where one doctor treated and knew the patient and his problems, must be replaced by something else if it is important for the doctor to know more about the patient than just his current complaint. The newly oriented general practitioner may fill this gap in modern health care and the clinic-type group can provide the framework for close integration of knowledge of the whole patient with the specialist's skills and techniques. Partnerships and groups may come into being mainly for their administrative, financial, and other practical aspects from the participating physicians' point of view, but the result is a mechanism providing a broad spectrum of specialist services with an easy intraclinic referral system, central records, and ready facility for communication among the practitioners. All these factors go a long way towards putting together again the Humpty Dumpty of general and continuing care which would otherwise remain hopelessly fragmented as a result of specialization. The ready availability within the group clinic of diagnostic and therapeutic equipment and other ancillary services add further to the integration of care as well as to its quality.

The availability, within a group, of specialist and technical services as well as equipment points up similarities with hospital services. The well staffed and equipped group could relieve some of the demand on the hospital. The availability of special services in the group clinic has the advantage of ready access, referral, and consultation, but the solo practitioner on his part can avail himself increasingly of the services of independent X-ray and clinical laboratories.

Hospital services, too, have been characterized by more specialized equipment and services, leading increasingly to classifying the patients into types and compartmentalizing their treatment. The hospital has replaced the home as the place where much of the illness is cared for. It has become an effective and elaborate machine for the treatment of patients, and as such it is very costly. The rising cost of hospitalization remains a matter of concern though insurance and prepayment have eliminated the financial risk to the patient at the time

It has been said that the way the patient pays for his medical care has something to do with that personal relationship. At least some physicians feel, however, that money matters detract from a good relationship rather than cement it. We have also seen that today the way the patient pays the doctor has often no bearing on the manner in which the physician receives his remuneration in partnerships or groups. Even in solo practice, the accounts are handled by the doctor's office rather than the doctor himself, and are often handed over to a collection agency. The prepayment plans sponsored by the medical profession indicate recognition of the need for a prepayment mechanism which in any case would be available from commercial insurance. Those who cannot afford the premium, could not afford the fees either. Thus, if the method of payment ever had any effect — which is doubtful indeed — on the way in which the physician practises his profession or on the patient's attitude towards his doctor, such effects have been removed long since.

when the service is needed. If the hospital has turned into a diagnosing and healing machine, and the care changed from compassionate charity to cold scientific and technical methods, this has no doubt greatly increased the effectiveness of the hospital. What ill effects the change exerts by adding to the physical trauma the psychological one of removal from familiar surroundings can be overcome, and frequently are overcome, by humanizing the "processing" of the patient. This means little things such as a comforting or reassuring remark during completion of the admission form or a word of explanation when the identification tag is snapped on, instead of leaving the patients - particularly children - wondering what is going to be done to them and unnecessarily increasing their understandable apprehension on entering a hospital. But the humanizing may well extend into the architectural design of the hospital plant without diminishing its functional efficiency. Hospitals need not be "cold stone" barns where the experience of healing is cold and without environmental warmth";1 instead of its cold and forbidding appearance, the outer appearance of the hospital can be made a favourable emotional experience "psychologically beneficial to patients, staff, visitors and employees", "Why", Frank Lloyd Wright asks. "is the hospital not as humanely practical in aesthetic effect as it tries to be in physical purpose?" Thus, the hospital could become part of the living city which he envisaged. If hospitals and departments within hospitals are becoming increasingly specialized, we have also observed the trend towards progressive patient care which adjusts the care given in the hospital to the successively changing needs of the patient. The need for the patient's separation from his home environment is reduced by referral systems and organized home care plans which also result in closer integration of the hospital with other community services. The provision of day or night care facilities removes the clear-cut dividing line between in-patient and out-patient care, and the gradual abandonment of the separate mental and tuberculosis institutions and their possible integration into the hospital insurance scheme will go a long way towards greater co-ordination among all institutional health services.

The emergence of a new concern with the health of people as social beings creates a need for ensuring that both social and health needs are met. This requires a closer liaison between the health services and the equally specialized community services on the welfare side. If the teaching of social medicine in the medical school creates the necessary awareness of this interrelationship, services such as medical social work, homemaker services, sheltered employment for the convalescent and handicapped, occupational therapy and vocational training are all designed to round out the health services proper.

¹ Peckham, A.H., 'Hospitals as an Art Form', Hospital Administration in Canada, October 1964, p. 47.

² Ibid.

Wright, F.L., The Living City, New York: New American Library of World Literature, Inc., 1963, p. 204.

Vocational training and education, special educational facilities for the handicapped, and placement services in the course of rehabilitation lead directly into the fields of education and employment.

Measures for the promotion of physical and mental fitness link health considerations to the wide and varied field of recreation. The physical sciences are drawn into the area of health services by supplying diagnostic and therapeutic equipment as well as by applying engineering know-how to the design of prosthetic devices which alone render possible any degree of habilitation for handicapped children and rehabilitation for physically impaired adults.

The protection of health and the provision of health services have become the subject of legislation at the municipal, provincial and federal level far beyond the original extent of health legislation which was designed to protect the community from the spread of communicable diseases and provide for the hospitals which existed in the main as charitable institutions. Constitutionally, this development has brought about an extension of the original local concern with health matters to the provincial and federal level. Among the reasons for this expanding concern with health matters have been the rising costs of health services which are exceeding the resources of local governments and developing into a major component of the nation's economic fabric.

The brief review of the changing role of governments within the health services complex has illustrated the growing and changing scope of public health services. In particular, the term public health has assumed a far broader meaning, linking this branch of the health services more closely to various aspects of personal health services.

The specialization in the traditional health profession and the emergence of new disciplines and occupations is being counteracted not only by emerging new patterns of organization, but very substantially also by integrating their education and training in health science centres instead of teaching the various disciplines in separate institutions isolated from one another.

There are then many instances where specialization of health disciplines and proliferation of services have led to efforts to bring the diverging parts together again. But it was not until the appointment of the Royal Commission on Health Services that a systematic attempt could be made to take stock of the often conflicting, competing, or at best isolated developments of the last few decades. The Commission provided, for the first time in this country, the framework for an over-all assessment of the important but haphazard trends in the development of health services. We have, however, by no means reached the end of the many dynamic processes at work, which must be expected to continue, and to continue probably at an accelerated rate. Therefore, it will be necessary, even after the

Royal Commission has made recommendations for rationalizing the present organization of health services, to maintain a programme of continuing observation and evaluation of health services in order that Canadians may be assured of the best possible health services not only now but also under changing conditions in the future.¹

EMERGING PATTERNS OF ORGANIZATION

A workable system of health services requires three components apart from the matter of paying for them: 1) personnel, 2) physical facilities and equipment, and 3) an adequate organization of personnel and facilities. Matters of personnel and facilities have been examined elsewhere by the Royal Commission on Health Services in its Report as well as in special studies prepared within its research programme. Organization is not something that has to be artificially superimposed upon the present structure; nor does Canada's constitutional status and social development favour solutions which may work well in smaller countries with a centralized administration, or in countries where governments assume absolute authority on a much broader basis than is the case here. To find a solution suitable to Canada's institutions it will be well to examine the germs of solutions developed spontaneously and to see to what extent such solutions may be amenable to broader and more systematic application.

The developments described in the foregoing pages have resulted in:

- 1) a multiplicity of services,
- 2) a multiplicity of auspices under which the services are operated,
- 3) a multiplicity of financial and administrative arrangements under which the services are operated.

The multiplicity is the natural outcome of the scientific progress which has taken place and has been applied within Canada's social, economic, and political framework.

It is important to bear in mind that this development is not peculiar to the health field. It can be observed in many other areas where responsible individuals and agencies took the initiative reappraising traditional patterns. The results may often appear radical and revolutionary though they are merely the outcome of an ongoing evolution whose subtle and inconspicuous manifestations may have gone unnoticed for some time until eventually the stage is reached where their cumulative effect can no longer be ignored. We have seen this happen in the field of religion, edcation, economics, defence, international relations as well as relations between various groups within a country, the constitution, the arts, in short, in every field of human endeavour. The health services, too, need such a reappraisal, thus providing a basis for the orderly planning of our affairs in the future; to ignore it could only lead to chaos.

¹ The Health Planning Councils and the Health Sciences Research Council recommended by the Royal Commission on Health Services provide a mechanism for continued evaluation and review.

CHANGING ROLE OF GOVERNMENT

The role of government has been in transition in all sectors of social action and it is not surprising that health services are exposed to very much the same wind of change that permeates and molds the modern image of government in many other fields. The function of governments as providers of health services has already been described. To understand it better and to see it in the context of the future organization of health services, it will be helpful to remind oneself of the shifting roles of the individual on the one hand and his government on the other and of governments in relation to one another. In the Canadian setting in particular, this problem has to be discussed from two angles: first, there is the question of the function of government as such as opposed to the efforts and responsibilities of the individual and his private and voluntary organizations; and then there is a shift of responsibility back and forth among the three levels of government, namely the local or municipal, the provincial, and the federal.

Reviewing first the changing concepts of the role of government as such in our society, political framework, and social order, we find historically this role most thoroughly debated in the economic field. We recall here the swing of the pendulum through various degrees between protectionism and "laissez faire". Of late we have witnessed an increasing role played by the state in several respects. Some nations in the "free enterprise" camp which always jealously guarded their national identity, have agreed to subordinate some of their autonomy in the economic sphere to the interests of a group of states joined together voluntarily for this purpose. This is happening in Europe, the traditional battlefield of nationalistic interests of which economic matters had been not the least. While internationally the call is for freer trade, there is increasing acceptance in Canada and the United States of the idea that even a free ecomomy must, in order to remain free, accept the principle of national and international planning.

The Royal Commission on Health Services has examined the role of government in Canada in regard to the financing of health services, and it arrived at the conclusion that government has a larger role to play in this area. Having described the growing participation by government in the provision and financing of health services, the question arises as to what the respective functions are of each of the three levels of government: municipal, provincial, and federal.

DIVISION OF JURISDICTION AMONG GOVERNMENTS

The Order in Council establishing the Royal Commission on Health Services recognized the fact "that the power to make laws relating to health services is, except in limited fields, within the jurisdiction of Provincial Legislatures". It further enjoined the Commissioners to make recommendations "consistent with the constitutional division of legislative powers in Canada".

The concept of provincial jurisdiction in health matters is in itself a product of evolution and interpretation of the British North America Act. While the Act contains specific provisions for education and schools, it contains no reference to health as such or to health services. This, as pointed out, is due largely to the absence of major problems and therefore of the recognition of health as a subject matter which could conceivably have raised doubts as to the jurisdiction in 1867. What problems there did exist, were abviously "of a merely local nature in the Province". It was first of all a matter of containing epidemic outbreaks of contagious diseases brought to Canadian ports by ships from abroad. What steps were required had to be taken immediately and locally; there was no question then of mass vaccinations from coast to coast nor were they necessary with the limited and slow means of transportation of the time. The other problem related to health was still more limited as it related to the hospitals of the day whose nature we have already described and whose scope and operation was very similar to that of the asylums, charities, and eleemosynary institutions with which the British North America Act deals in Section 92(7).

A similar situation prevailed in regard to welfare which also did not receive, nor at the time warrant, specific mention in the British North America Act because what services existed were of strictly local scope and concern.

Because the immediate concern with the health and welfare of the people has traditionally rested with the local authority, and because of the provision that matters of property and civil rights in the province fall under the exclusive powers of provincial legislatures, their jurisdiction in the health and welfare field has always been accepted, just as the Act specifically stipulates it in the case of education. The provisions of the Act relate only to the jurisdiction, i.e., the right to make laws concerning certain subject matters. This is distinct from the actual operation or management of health services which may not be, and in fact originally have not been, in the hands of government as far as personal health services are concerned.

As time went on, a third factor affecting health services has come to the fore: their financing. As the services began to reflect the scientific advances of our age, they became gradually more elaborate and more effective, but also more complex and hence more costly. Governments had to contribute to the capital cost of building hospitals and eventually to their operation. Governments gradually also assumed the operating costs of certain personal health services either because they were necessary for the protection of the community (e.g., tuberculosis and mental health services) or because of the danger of people avoiding necessary care because of the cost (e.g., cancer diagnostic and treatment services). The concept of government entering the picture where the complexity and cost of health services are, or may become, beyond the means of the stricken individual has gradually broadened. Hospital insurance under government auspices has become an accepted fact. Provinces now have introduced or are actively considering schemes for medical care insurance. The Health Services Programme

recommended by the Royal Commission on Health Services would be another step in the same direction.

There has been, then, a trend for the responsibility for the provision and financing of health services to shift from the individual to government and, among governments, a shift in assuming the growing costs — both operating and capital — from local to higher levels of government; local governments, though primarily concerned with health matters, can no longer finance them from their own resources so that provincial and federal grants have become necessary to achieve and maintain certain standards.

The expanding role of government on the one hand and the shift of financial involvement from the local to the provincial and federal government are again not unique to the health services. Whe find the same pattern in education, welfare services, and other public programmes such as road construction. The basic problem in all these various fields is one of reconciling the advantages of local planning and operation with the need for financial support from senior governments with the objective of maintaining certain minimum standards throughout the country.

SUMMARY

The history of the development of our health services shows that from time to time steps were taken by governments, voluntary agencies, professional organizations, and individuals to cope with certain health problems as they arose, and also to keep pace with scientific and technological advances. There has been organization, but always limited to certain programmes or areas. This worked well while the agencies in the field were few and their field of action clearly defined and this is why we can point to our health services as among the best. Roemer has described similar developments in the United States:

is to make American health service more and more socially organized. Yet the organization occurs in segments. Particular needs are met with particular programs. Actions are taken by government at all levels and by hundreds of voluntary agencies. Special efforts are applied to a certain population group, a certain disease, or for the provision of a certain type of technical service. The focus may be preventive or therapeutic or it may be both. The organization may involve direct provision of some health service by a structural social entity, or it may involve the imposition of certain formal standards and economic arrangements over the provision of services by individual medical practitioners. Social organization may also apply to the world of medical research or professional education.

"The resulting structure is organized but it is a polyglot picture. It reflects the historic origin of each program more than a rational approach to the meeting of current needs."

¹ Roemer, M.I., "Changing Patterns of Health Service: Their Dependence on a Changing World", in The Annals, March 1963, pp.54-55.

While the various services have developed, and on the whole developed satisfactorily within their own sphere, this has come about in a very haphazard fashion and without the rational approach Roemer misses. This is natural and to be expected where we have so many types of services, each one subject to a variety of auspices. Thus we have services provided by private enterprise — such as the majority of physicians, dentists, and other practitioners — by voluntary organizations, and by governments, the latter on three different levels. There have been instances of voluntary organizations assuming a quasi-governmental role, but these have remained the exception rather than the rule. The situation has been further complicated by a great variety of piecemeal arrangements for paying for health services and the limited and uneven extent of insurance coverage with the result that, where a choice and alternative is possible, the demand for services has shown a tendency to gravitate towards the most insured type of service.

The shortcomings of this lack of coordination in the face of an ever increasing fragmentation of services have become apparent, and there have been a number of developments which may mitigate this situation. Among the most clearly discernible new forms of organization are medical group practice, organized home care, and the coordination of a wide range of rehabilitation services. Of these, only the field of rehabilitation services has been made the subject of a planned and systematic attempt at coordination. Group practice clinics and organized home care plans, to the extent that they exist, have come into being at local or personal initiative as means of solving particular problems faced by individual practitioners, local groups, or individual institutions.

Medical group practice has already been discussed in the context of the changing organization of medical practice. Home care programmes and rehabilitation services will be dealt with in the following chapters. The emphasis in this study will be limited largely to the organizational aspects of these two types of programmes but it must be stressed that all these newly emerging forms of organization, and particularly their interaction, need much more extensive study before they can be fully evaluated.

ORGANIZED HOME CARE

THE RENAISSANCE OF HOME CARE

We have seen how the hospital has been transformed from its original largely passive role, as a refuge for some of the very sick to live out their illness, to the modem active and effective treatment centre or laboratory. The image of the hospital and the attitude towards it of both patients and doctors has changed accordingly; far from being considered as the place of last refuge, the hospital has become almost synonymous with everything that advanced techniques and modern medicine have to offer. It has become the accepted place for the patient when diagnostic or treatment procedures of any consequence are involved. To the attending doctor the hospital also has the advantage of its physical and personnel facilities, in addition to the time-saving convenience of having his bedfast patients in one or two places instead of having to visit them in their scattered homes. The widening range of specialized personnel and services found in the hospital reflects its growing effectiveness.

The increasing admission rates and percentages of births and deaths occurring in hospitals are evidence of the growing acceptance —or even popularity — of hospital care. The greater use of hospitals and the improvements in the care they provide have combined to increase the cost of hospital services, but in Canada this has been counteracted by a rising standard of living and by methods of financing which by and large eliminate the financial risk of seeking hospital care.

While the hospital has become a better place for the provision of health care, the home and the family are less important in this respect, due to the changes brought about in the social pattern of family and community.

It is the combination of these various factors which instigated the spiral of an increasing demand for hospital beds; the more beds there are available, the more will be used, although there may be a limit somewhere, especially when the factor of discriminating insurance coverage is removed.

Doubts have been expressed regarding the wisdom of the extensive use of the hospital; deliveries in the hospital may mean better services but they also entail the danger of infection in the hospital setting; hospitalization often adds the stress of the separation from an accustomed environment to the patient's physical suffering. Arguments of this kind have received powerful support through the fast growing cost of hospitalization to which there seems to exist no limit short of more or less arbitrary administrative measures curtailing hospital services.

Should not some of the care now provided in the hospital be given in the home — not necessarily to save hospital beds, but because the home is the natural place to be, especially when sick, unless certain services make the presence of the patient in the hospital necessary? We have outlined the improvements of the hospital and the deterioration of the home as a place for the sick. Therefore, if we attempted now to reinstate the home as a place for some of the care now given in the hospital, an organized effort is required to compensate for these factors.

Much care, of course, has continued to be provided in the home and home care as such, therefore, is nothing new. The new element, and the one with which health administrators have to concern themselves, is that part of home care which requires some organization so that the patient in his home will be provided with equipment or services which otherwise he would have to seek in the hospital or go without. But one should not look at home care, even organized home care, necessarily as a substitute for or supplement to hospital care. Home care plans do carry cases whose days of care are not considered as "hospital days saved", but who are admitted to home care because they require some of the community services coordinated by the plan. On the other hand, it must not be forgotten that the personnel and technical resources of the hospital, as well as the patient's physical proximity to them within the hospital, remain essential for a large portion of the diagnostic and treatment care if this care is to benefit fully from modem scientific achievement.

THE CONCEPT

The role one would want to assign to the emerging patterns of health services in the health services complex of the future is not necessarily the guiding motive in the establishment of specific programmes. This is true of medical group practice and it also applies to home care programmes. Most of these programmes were established to meet some particular situation in the local community and as a result they vary a good deal in their organization, sponsorship, scope, and effectiveness.

Their objectives are outlined in many different ways by individual home care programmes, but most of them are similar in two respects: the organization of the various community services for the benefit of the patient, and relief of the pressure on hospitals. In some cases the shortage of hospital beds prompted the organization of a home care plan, in others it was the concern with the home-bound and chronically ill in the community who did not and could not avail themselves of all the services that existed. The hospital is one of these services but only one out of many, though the most elaborate and costly.

As already stated, it is proposed here to review home care plans from the point of view of what they accomplish rather than of the motives behind the establishment of particular plans although the latter will have some effect on the characteristics of the plan. If organized home care can reduce the rapidly increasing capital and operating cost of hospitals and provide equally good or even better care, one would certainly accept this factor alone as a strong argument in favour of home care. But it is also true that our modern community health services are so fragmented that an organized coordination of these services will benefit many whose admission to a hospital may never be contemplated. The hospital with its concentration of expert personnel and efficient equipment is not likely to lose its role in the provision of health care but it may mean "a shift in emphasis away from the hospital bed as the central element in the hospital".

An 'increasing coldness towards hospitals as compared with the home'' 2 to the extent that it exists in Canada, is indicated by the general trend towards early ambulation, progressive patient care, and rehabilitation. All these are factors of a purely medical nature (not related to the economies or administrative problems of hospital care). The hospital bed will always remain the best place in all cases where the patient's proximity over a period of time to such services as X-ray or laboratory is essential and where continuous supervision is required.

The patient's admission to a hospital or the duration of his stay there is determined not only by the medical indications of the case but very largely also by the social circumstances. Does the patient have a reasonably sanitary home to stay in if he did not go to the hospital? Is somebody there to look after him? Is he close enough to the hospital to be brought there quickly if necessary?

The haphazard development of home care plans has meant in many cases certain limitations on the type of patients admitted to the plan, beyond the purely medical and social criteria which establish whether a particular patient could benefit from home care services. Among the extraneous criteria are the capacity of the plan in terms of finances and personnel. But these apply generally without selecting certain types of patients, except perhaps in terms of the severity or urgency of the case. We also find that some plans are limited, for instance, to patients discharged from a certain hospital, to certain conditions (such as psychiatric), or to indigents. This is natural as long as the establishment of home care plans has to wait for local initiative which often is sparked by a specific problem. The selectiveness characterizing some of the existing plans will gradually disappear, however, where the plan is established as an essential community service.

Detwiller, L.F., "Integration of Care Patterns", The Canadian Hospital, January 1963, p. 53.

² "Essays in Co-operation", editorial, The Medical Officer, London, Aug. 3, 1956.

DEFINITION

The extensive literature on home care offers many definitions, simply because there are many types of plans. From what has been said about the concept of organized home care it is not difficult to derive a general definition. Thus we have already established that the distinguishing characteristic between the care always provided in the home and the modern concept of home care is the organization of the latter: thus, when we speak of home care, it is *organized* home care.

The physician remains now, as before, the one directing these services. Obviously, no new organization is needed where care is provided only by the physician, or by the physician and only one other agency such as, for instance, a visiting nurses service. Hence we find that some definitions include the involvement of two or more services in the home care programme as one of its essential characteristics.

The definition of home care in this context then is that of an organization coordinating and making available to the patient the services of at least two agencies providing services to the sick in the community outside the hospital. Hospital- based plans provide such services partly from their own resources. The emphasis is on the home as opposed to the in-hospital services. Although in most cases the services will be provided to home-bound patients, ambulant patients could conceivably visit out-patient clinics or other community facilities. The definition, therefore, does not necessarily imply services actually rendered in the patient's home but may cover services provided to patients as long as they are residing at home — or some home — rather than at the hospital.

One widely accepted definition¹ points to the necessity of formal admission to and discharge from the home care programme. This certainly applies where the plan is designed as an extension of in-patient hospital care, and where accounting or billing methods require this type of bookkeeping.

Ready access to in-patient facilities is a highly desirable feature existing in many plans, particularly the hospital-based ones. It helps to allay the anxieties of patients and their families concerning the possible need for readmission to the hospital. However, it may not be an essential attribute of a workable home care plan; some schemes that are not hospital-based exist without firm agreements with hospitals, the patients being subject to the same priorities for admission as apply to the general population.

^{.1} By the Conference on Organized Home Care, held under the auspices of the Chronic Disease Program, U.S. Public Health Service, in Roanoke, Virginia, in 1958: "Organized Home Care provides co-ordinated medical and related services to selected patients at home through a formally structural group comprising at least a family physician, a public health nurse, and a social case-worker, assisted by clerical service. For satisfactory functioning, patients must be formally referred and there must be an initial evaluation, monthly review of records, and a final discharge conference. There must be ready access to in-patient facilities".

One distinction frequently made between basic types of home care plans is that between (a) community-based and (b) hospital-based plans. This may be a useful criterion for the classification of the ways home care plans originate but once the plan is in operation, each type frequently adopts features of the other so that eventually the distinction becomes one of semantics rather than of the actual operation of the plan.

A community-based plan is essentially one administered by an agency other than a hospital for patients meeting the criteria for home care regardless of whether they have been, or will become patients in a hospital.

Hospital-based plans, on the other hand, are operated by a hospital as a department of the hospital — very much like an out-patient department — and are therefore limited generally to in-patients transferred to the home care plan or sometimes to patients who would be admitted as in-patients were it not for the home care plan.

The remaining essential criterion of a home care plan is an organization coordinating several health care services in the community. These services may include services other than health services proper, such as homemaker services and others not necessarily directly concerned with the medical aspects of health or ill health, but required for the effective care of the patient.

THE HESITANT APPROACH TO HOME CARE

Home care is not a distinct type of service but a way of organizing a multiplicity of services. There exists no national or provincial plan for such an organization nor a uniform pattern. Such organized home care plans as exist in Canada, and for that matter in the United States, are largely the result of local initiative prompted by the awareness of local needs which, of course, vary from one community to the next — as do the approaches and resources to meet these needs. The type of plan and its performance are also very much influenced by the attitudes of the individuals and agencies involved as well as by their interpretation of the objectives and of the best ways of meeting them under the existing local circumstances.

The idea of organized home care originated from attempts to extend some of the services normally provided within the walls of the hospital into the patient's home. While the history of home care in North America mentions such schemes as early as the end of the 18th century, it was not until the post-war period in the late 1940's that the venture by the Montefiore Hospital in New York caught the imagination of those who were imbued with the reborn concern for health and health services, and faced with their growing cost particularly in regard to hospitals. As the

¹ Among the early plans was the pilot project at Syracuse University College of Medicine in 1940.

demand for hospital beds increased — fostered among other factors also by the growth of prepayment for hospital care — so did the costs of building hospital beds.

The purpose of the Montefiore plan was to "solve the three problems of (1) shortage of beds, (2) excessive cost of construction of new beds and (3) the emotional difficulties suffered by patients as a result of hospital confinement".¹ The objectives of home care plans have remained unchanged though the order of emphasis may have varied. One might add as a fourth item the growing attention to rehabilitation, where the home may provide more incentive and opportunity for activities which may be desirable for some patients at a certain stage.

The Montefiore Hospital emphasized long-term illness requiring hospitalization and in its home care plan concentrated on the indigent group, i.e., "patients who require active medical and nursing care but do not require the specialized facilities of the hospital, occupying beds only because of poverty and the inability to afford the services of a private physician". Nevertheless, the basic problems leading to the home care plan there existed elsewhere in the United States and Canada.

What is needed to channel some of the hospital's load back into the homes? We have already asserted that certain patients and certain conditions can be treated effectively only in the hospital either because they have to use equipment or services which can be made available only in the hospital or they need nursing care and supervision, or both. The nursing care is one of the chief components of hospital service. Where it has to be available continuously, it can best be provided in the hospital. In cases, however, where somewhat less extensive nursing care is needed, the visiting nurse provides an alternative.

It is strange that we seem to have suddenly discovered visiting nursing as an integral factor in our health services — as an alternative to hospital care. When the first visiting nurses organization, the Victorian Order of Nurses for Canada, was established at the turn of the century as a voluntary organization, one of the essential features of its services was the staffing and operation of cottage hospitals. In 1919 the operation of the hospitals was separated from the Order. But while the hospitals became part of the hospital network in the provinces, operated initially by the municipalities or other organizations, visiting nursing was left to fend for itself depending entirely on voluntary local initiative for the establishment of branches and voluntary effort for its financing, supplemented very inadequately by government grants. Despite this lack of encouragement, the Order has expanded to the extent that it operates 113 branches today employing over 650 nurses.

¹ Cherkasky, M., "Hospital Service Goes Home", reprinted from The Modern Hospital, May 1947.

² Ibid.

Altogether 38 hospitals distributed as follows: Labrador - 1, N.S. - 1, Que. - 1, Ont. - 8, Man. - 4, Sask, - 6, Alta. - 6, B.C. - 11. Gibbon, J.N., "Victorian Order of Nurses for Canada, Fiftieth Anniversary 1897-1947", Montreal, 1947, p. 69.

⁴ In all provinces with the exception of P.E.I.

Besides the Victorian Order of Nurses which covers nine of the provinces, there are the Société des Infirmières Visiteuses operating in the Province of Ouebec.¹ and the St. Elizabeth Visiting Nurses Association in the Toronto and Hamilton area. The national network of branches of the Victorian Order of Nurses is unevenly distributed and limited, by and large, to urban areas but beginning to reach out beyond their boundaries. The reasons are to be found in the conditions described above as well as in the relationship of nursing to the medical profession. Since its frontier activities of the early days, ranging from the Klondyke to Labrador. have given way to the practice within organized communities, the Victorian Order on the one hand has adhered to the rule of its nurses working only under the direction of the attending physician, while on the other hand it has been faced with the apathy or sometimes outright hostility of members of the medical profession. This indifference towards other community health services has been one of the factors for the slow development of home care in general. Although this attitude may be gradually waning, there are still some doctors who look upon the activities of these agencies as attempts "to instruct us (i.e., the doctors) as to our professional opportunities and obligations",2

One still hears the frequent comment that doctors pay lip service to the various community services but do not use them. But we shall also see notable exceptions to this indifference which, in part, is based on some very practical considerations.

The other health service existing in the community and reaching into the homes was that of the public health nurse. With few exceptions, however, it had not been oriented towards the provision of actual care in the home but has been limited largely to the traditional public health field of prevention, health education, and follow-up.

Then there always has been the private nursing practitioner, the private duty nurse, who could be hired by the patient by the day; a rather costly service limited largely to the exceptional emergency situation.

The voluntary visiting nurses agencies whose "raison d'être" was the provision of home care, were — paradoxically — in no position themselves to promote and expand their services since they were dependent on the initiative of other local organizations or individuals as well as the goodwill of the medical profession. Public health departments were not organized to provide personal health services on a large scale and the private duty nurse had no stake whatever in the organization of health services.

With branches in Montreal (3 districts), Trois-Rivières, Nicolet, St.-Jean, employing a total of 44 nurses. Mémoire presenté à la Commission Royal d'Enquête sur les Services de Santé, Société des Infirmières Visiteuses, April 1962.

Gibbon, J.N., op. cit., p. 21.

From the inception of the National Health Grants Programme grants were made available to assist newly established home care programmes, but again the initiative in the form of a proposal had to come from the local level and the grants were designed more to encourage experimentation with individual home care plans than to aid their over-all organization, and systematic development.

This is why existing home care programmes are entirly lacking any systematic coordination or organization, although visiting home nursing as such has since been accepted as part of the duties of the public health nurse in British Columbia, to a much more limited extent in other provinces.

Under the pressure of circumstances, home care programmes of one kind or another have been organized in various communities. The first in Canada was established in 1950 by the Herbert Reddy Memorial Hospital in Montreal. It was patterned largely after the Montefiore plan and designed to extend, where possible, the services of the hospital into the patient's homes.

In the following year, 1951, the North Okanagan Union Board of Health instituted a plan aimed primarily at relieving the Vernon Jubilee Hospital of some of the demand for beds during the peak season. This was done by providing the services of the public health nurse, housekeeping service and drugs, where needed, to convalescent patients for a limited period of time. The experience gained in this project eventually led to the more extensive activities of the British Columbia public health nurses in the home nursing field.

It was not until 1958 that the home care plans at the Winnipeg General Hospital and the Pilot Home Care Program in Toronto got under way, the former a typical hospital-based plan, the latter one of the Canadian prototypes of a community-based home care project. In 1959, a home care rehabilitation project was started in Saskatoon primarily for patients with neurological disabilities and senile psychosis and was extended later to other conditions. The same year saw an interesting experiment commence in Grand Prairie, Alberta, where in a frontier setting with a minimum of professional personnel the bulk of the home care was provided by specially trained lay personnel. A home care programme in Moose Jaw, Saskatchewan, is noteworthy for its sponsorship by the medical profession, the Section of General Practice of the District Medical Society. In the same year a home care plan was undertaken at the St-Jeanne d'Arc Hospital in Montreal. During the entire period the Nursing Care Programme in British Columbia was gradually extended to new areas in the province, and several local projects are at various stages of development in a number of other provinces. Some of the existing plans are undergoing changes so that it is difficult to extimate the precise extent or volume of their activities. The lack of uniformity in the reports adds to

¹ Except for that as previously mentioned by the National Office of the Victorian Order of Nurses.

this difficulty. It appears, however, that at the time of writing, formal home care plans are looking after hardly more than 500 patients a year, plus some 1,000 covered by the British Columbia programme. This may be compared to about 3½ million patients passing annually through our hospitals.

It should be noted, however, that the list of formal plans should be augmented by reference to various shades and types of arrangements which, while less formal, serve similar purposes. Among these are the various referral arrangements, rehabilitation plans, and some of the community care plans for patients with psychiatric disorders. All these illustrate again the flexibility of the concept of home care and its close interdependence with a variety of health and other community services.

FURTHER REASONS FOR THE SLOW DEVELOPMENT

Mention has already been made of the effect of attitudes, lack of familiarity, and lack of over-all guidance and direction.

There are other reasons, related in part to those already mentioned. Among them is the fact that home care does not fit into the traditional categories and types of services which have developed in the community with little or no relation to one another. Another very important factor is the present equally haphazard and piecemeal method of financing the various components of our health services. As one administrator put it: "If there were no hospital insurance, there'd be a lot more home care". The reason is that with the cost of hospitalization paid for by the hospital insurance scheme, there is not only no incentive for the patient to accept home care but there is a definite penalty. For in addition to his contribution (whatever form it may take) to the hospital plan he would have to pay the cost, or part of the cost, of his home care.

If we concluded that organized home care is effective, do we then have to do away with hospital insurance in order to promote it? Or could we have a good deal more home care if it were covered by the same kind of insurance that now applies to hospitalization? There are those who say that the cost of home care to the patient really is not a major factor, and that in the mind of most prospective home care patients the advantages of being at home outweigh the financial consideration. However, we know from experience elsewhere that if some part of the health services is covered by insurance, or free when needed, this type of service will attract cases which would otherwise be cared for elsewhere. If we institute, for example, free diagnostic services for cancer, a wide range of conditions will

¹ This was in 1963; by the end of 1965 there were about 20 home care plans in Canada, either in operation or in well-advanced planning stages.

Whereby patients may be referred by a hospital to a visiting nursing organization without formal integration with any other services (some of the British Columbia services are of this type).

become "suspected cancer" in order to benefit from the free service; coverage of all diagnostic services will remove this extra pressure on cancer facilities. Likewise, as long as hospital service is the only type of care covered by insurance and as long as we keep building more hospital beds, alternative services are difficult to develop.

Arguments in favour of home care are the preference of the patient and his family as well as his better chances of recovery and rehabilitation; on the debit side we find the slow acceptance of this service by the medical practitioner not necessarily because he is opposed to it but because he is not fully aware of its existence and possibilities. Some home care administrators claim that the doctors find it much easier to have hospitalised patients discharged or transferred to another institution, even a nursing home, than to have them admitted to home care. Then there is the very practical consideration of the doctor being able to see more of this patients in a shorter time if they are in the hospital than if he had to see them at their scattered homes. Home care certainly does mean more home calls for the doctor although the calls needed will be less frequent than they would be without the home care organization. Part of this gain, however, may be lost by the doctor's participation in home care conferences and consultations.

A review of home care programmes in Canada and the United States led Dr. Genesove of the Moose Jaw plan to conclude that:

"The biggest single failing in each program was the failure to enlist the support, develop the interest, and utilize the skill of the average neighbourhood doctor".1

Awareness of the reasons for this failure will help to find the solutions. Indifference or antagonism to the principle of home care can be overcome only by reorientation of the practitioner and particularly by existing programmes proving their worth. The organization and administration of home care must be such as to make it easier, not more difficult, for the doctor to mobilize what supplementary services are needed.

SERVICES PROVIDED BY HOME CARE PLANS

The doctor and the visiting nurse can form a home care plan for all practical purposes, with the visiting nurse association providing the organization. As already indicated, the nurse sometimes also takes on the role of the social worker in assessing the suitability of the household for home care, and she also establishes contact with other community services required in the case. The latter, however, is done on a more or less personal basis without any formal liaison machinery. This, together with the fact that no new organization is required if only medical and nursing care are involved, excludes this type of arrangement from those covered by the definition of an organized home care plan.

¹ "The Moose Jaw Community Home Care Program, Moose Jaw, Saskatchewan", First Annual Report, April 1st, 1962 - March 31st, 1963, p. 6.

To satisfy this definition, at least one more service is required whereby the two or more services would be coordinated by an organization specifically created for this purpose.

Just what this service, or any additional services should be, depends on what is available or can be made available in the community. Accordingly, definitions of home care differ in this regard, some naming the social case worker as the second essential service besides the nurse, while others2 require at least a homemaker service. We must expect that the services actually provided by the various home care plans in Canada will vary not only with the resources of the community but also with the type of patients referred to the plan and the effectiveness of its organization. It is not difficult, however, to state what services should, ideally, be available under an organized home care programme. They include, in short, all the professional and technical services available at the hospital (except those specifically limited to active treatment which can be given only to hospital in-patients) plus any services required to supplement where necessary the patient's home environment so that the health services can be provided in the home in a favourable setting. In other words, home care must be able to provide both the health services proper and such services as homemaker, meals-on-wheels, social welfare services, and friendly visitors, needed to provide the adequate environment for the effective functioning of the health services. Obviously the range of services available will substantially determine the type of patients that can be admitted to a home care programme; the cost of the programme will also be affected by the type of services available and the extent to which they are used. The kind of services a home care plan has to provide will also depend on the extent to which diagnostic and treatment services are available in a hospital out-patient department or rehabilitation centre, and can be used by patients going there or taken there by ambulance or taxis. Depending on the relationship between the programme and the hospital, X-ray or laboratory procedures may be considered part of the home care programme.

Table 1 shows the services provided by selected home care plans in Canada. While the range varies — not only from plan to plan but also under the same plan over a period of time — the following services are prominent: nursing as the basic service, homemaking or housekeeping, physiotherapy, occupational therapy, and transportation (ambulance or taxi). Social case work also is an important feature. Usually we find that new services are incorporated in the programme as the plan grows.

¹ See Report on the Conference on Organized Home Care, Chronic Disease Programme, U.S. Public Health Service, held in Roanoke, Va., June 9-13, 1958, p. 7; and Commission on Chronic Illness; Chronic Illness in the United States, Volume II, Care of the Long-term Patient, Cambridge, Mass., 1956, p. 587.

² Dale, B.T., Mumby, D.M., A Study of Home Care Needs in Wellington County, the Wellington County Board of Health, Fergus, Ontario, 1961, p. 5.

It is not exact because of the aforementioned varying approach to hospital X-ray and laboratory services. Also, some plans may include under a general heading like "social services", services which are specified in other plans (e.g., service clubs may occasionally provide appliances, drugs, etc).

SERVICES PROVIDED BY SELECTED HOME CARE PROGRAMMES IN CANADA, 1963 TABLE 1

	Conva- lescent Nursing Service, Vernon, B.C.	×× ×
	Home Care Rehabili- tation Project, Saskatoon	**** **** *
1303 1303	Projet d'un service de soins organisés à domicile pour les villes de Hull et de Pointe- Gatineau	×××× × ×××× x x x x x x x x x x x x x x
ians' services)	Service de soins à domicile Hôpital Ste-Jeanne D'Arc, Montreal	*** * **** *
ervices)	Home Care Section, Herbert Reddy Memorial	××× ××
addition to physicians' services)	Home Care Service, Greater Victoria Metro- politan Board of	××× ×
dition to ph	Home Care Medical Pro- gramme, Winnipeg General	*** ** **
(in ac	Pilot Home Care Pro- gramme,	***** ** ** *
	Moose Jaw Com- munity Home Care Pro-	****
	Type of Service	Nursing. Homemakers. Physiotherapy. Occupational Therapy Loan Equipment Drugs. Other Medical Supplies. Social Case Work X-ray. Laboratory Procedures Ambulance Taxi Orderly. Meals-on-wheels Speech Therapy. Nutritionist Nightsitter Appliances. Baby Sitter.

1 Planned for the future.

Note: The services provided by specific plans are subject to change. They are generally expanded as availability and resources permit,

THE PATIENTS AND THEIR CONDITIONS

Who are the patients cared for by a home care programme? A meaningful answer can be provided only for plans which are not limited to certain classes of patients, e.g., those with certain conditions, the aged, or the indigent. The most generally available information deals with the patient's age and the condition cared for.¹

The age composition of patients is fairly uniform among plans where statistics are available. About 70 per cent of the patients are in the age group 60 years and over. The remainder come almost entirely from the age groups between 20 and 60 years, with some plans having from about 3 per cent to 7 per cent of their patients in the age groups under 20.

In sharp contrast, among patients discharged from general hospitals³ the age group 60 years and over accounts for only about 15 per cent of the separations, the middle-age group (20 to 60 years) for about 46 per cent, and the under-20-group for about 39 per cent, as shown in Table 2. This reflects the emphasis in home care plans on the care of the aged, the main age group as far as chronic disease is concerned. The proportion of the over-60 in formal home care plans also exceeds that among patients receiving the more generalized services of the Victorian Order of Nurses, whereby the proportion shown for these services includes only the medical and surgical but not the maternity cases.

TABLE 2
PERCENTAGES, AGE DISTRIBUTION OF HOME CARE PATIENTS,

A COMPARISON

Age	Selected Home Care	General Hospital Separations		Visiting Serv	General Population	
	Plans	Cases	Days	Cases	Visits	1961
	%	%	%	%	%	%
Under 20	5	39	24	19	5	42
20-59	25	46	40	27	20	47
60 and Over	70	15	36	54	75	11
Total	100	100	100	100	100	100

¹ Statistical evidence is limited because of the comparatively small numbers of patients involved in most plans, the changing patterns of services within plans, differences from plan to plan, and last but not least because of the lack of uniformity in classifications, concepts, and methods of presentation, which makes it difficult to generalize from the data for individual plans.

² British Columbia, Winnipeg General Hospital, Toronto, Moose Jaw.

Unpublished data for 8 provinces (1960) prepared and made available by the Dominion Bureau of Statistics.

Little information is available on the distribution of the workload (number of visits or patient days) by age groups but the British Columbia and Victorian Order data agree in showing the average number of nursing visits to increase with the patient's age:

TABLE 3

AVERAGE NUMBER OF NURSING VISITS PER PATIENT

B.C. Nursing Care Programme		Victorian Order			
Age Group	Per Cent of Visits	Age Group	Per Cent of Visits		
0 - 19	9,6	Under 15	4.2		
20 - 59	14.6	15 - 44	10.0		
60 and Over	16.2	45 - 64	19.3		
		65+	26.4		

The conditions treated vary from plan to plan according to its scope and design. The emphasis is on chronic conditions, with cardiovascular patients accounting for about 30 to 40 per cent of the patient load, and cancer for about 10 to 20 per cent. Some plans, however, are limited to certain conditions or emphasize them (e.g., psychiatric disorders or diseases of the nervous system) while others generally will not accept such cases because of the lack of resources or because of other facilities available for the care of these conditions. Thus, plans are selective concerning the type of patients and conditions they accept though sometimes the restrictions imposed at the inception of a plan are relaxed once the programme has been in operation for some time. In stating their objectives, plans often refer in rather general terms to the problems of the aged and chronically ill.

STAFFING OF HOME CARE PLANS

The existing home care plans in Canada show no uniform pattern in their staffing although a basic structure is common to all of them.

The lack of uniformity is due again to the varying objectives, scope, and auspices of the plans. Both hospital and community plans make use of part-time personnel and consultants from outside the plan. Hospital-based plans, or those closely associated with a particular hospital, are likely to use the services of hospital personnel for some of the functions is the plan. This may apply to the medical director or supervisor of the plan as well as to physicians actually providing services to the patients. It is also true to an even greater extent of social workers, physiotherapists, and other personnel. We have already seen that some hospital-based plans use the services of the out-patient department for their patients, but do not consider these services as part of the home care plan as such.

Basic to all plans are:

- 1. the medical direction or supervision, though the physician performing this function may be only a part-time member of the staff or may not be a member of the staff at all,
- 2. the coordinator, the one position which is common to all plans though under varying names (nursing coordinator, supervising secretary, administrative assistant). This person is responsible for the coordination of the various individual services made available under the plan. Because nursing is one of the basic services and also because of the familiarity of the visiting nurse with patients' needs on the one hand and existing community services on the other, the coordinator is frequently drawn from the visiting nursing service;
- 3. clerical staff, or a clerk, with the varying functions of clerk, stenographer and receptionist, depending largely on the size of the plan and the availability of assistance from hospital departments, e.g., the medical record librarian.

Services such as those of the physiotherapist, homemaker, and others may be provided by the plan itself if the volume of services warrants the employment of a person for such a job, or the services may be purchased, where available, from an agency in the community.

Obviously this variety of arrangements will affect the accounting of home care plans and hence the resulting cost figures.

THE ECONOMICS OF HOME CARE

The discussion of the economic aspects of home care must be based on the experience of existing plans in their budgeting as well as their actual operation. From the foregoing description of various plans it is clear that because of the differences among the various plans and the difficulty of relating their activities to a well-defined population, comparisons among plans are difficult if not impossible.

As in the consideration of the economics of any health service, two broad questions will have to be answered for home care plans: (1) How much do they cost? (2) How are the services paid for? And here again, the primary consideration in the evaluation of home care is not whether it is cheaper but whether it is better than institutional care.

The lack of uniformity among plans in regard to services provided, patients accepted, administrative arrangements, and auspices is paralleled by a corresponding variety in accounting procedures. The inclusion or exclusion of administrative costs (overhead) is part of this problem, further complicated by the fact that in some cases this cost would be difficult to obtain where a plan uses the facilities or personnel or other agencies. None of the exixting plans can be related to a well-defined population served. However, from cost figures of various plans, it is

¹ The Moose Jaw plan comes probably closest to it. The British Columbia Nursing Care Programme, which is a type of service of its own, provides no cost figures because the service is part of the general public health nursing in the province.

possible to obtain per-visit or per-service data, and comparisons made of the cost of various services within a plan. Comparisons between different plans, however, of the cost of certain services are more difficult, because of the various administrative and accounting arrangements and the problem of determining the overhead components.

Another cost figure generally produced by home care administrations is the per diem cost, that is the total operating cost during a certain period divided by the number of patient days during the same period. This is a concept borrowed from the analysis of hospital costs. It assumes that patients are admitted to and separated from home care plans similar to their entering and leaving a hospital. Per diem costs are frequently used for cost comparisons between hospital and home care. But here again, a number of factors must be considered before conclusions are drawn from such a comparison. The same applies to the cost per patient or per case which indicates the amount required to care for a patient for the entire duration of his "stay" under the plan.

One of the basic questions, however, in the planning for home care programmes is that of the cost of providing home care services for a given population. This question cannot be answered unequivocally from the existing data because no home care plan exists as yet in Canada which is fully established and utilized, and serves a defined population.

Comparisons of the cost patterns of various plans are rendered still more difficult by the comparatively small numbers of cases involved so that the resulting figures will, in part, reflect the selectiveness of the cases involved. Nevertheless, a few basic facts emerge from a review of some of the plans where data are presented in a somewhat similar fashion.

Table 4 illustrates, for selected plans, the distribution of costs by the type of service provided:

TABLE 4
DISTRIBUTION OF COSTS¹ OF SERVICES, BY TYPE OF SERVICE PROVIDED,
FOR SELECTED HOME CARE PLANS;
ABOUT 1962

	Plan "A" (95 Patients)							
Type of Service	Cost		Services		Cases			
Type of Service	Amount	Per Cent	Number	Cost per Unit	Number	Cost per Case		
	\$			\$		\$		
Nursing:								
voluntary agency	7,336	37	2,006	3.66	71	103.32		
official agency	-	_	84	_	13			
Social service	_	_	62	_	12			
Physiotherapy	756	4	166	4.56	-	_		
Occupational therapy	1,992	10	428	4.65	39	51.08		
Speech pathology	329	2	69	4.77	_	_		
Homemaking:								
days	710	4	71	10.00	75	9.47		
hours	7,930	39	6,713	1.18	_			

TABLE 4 (Continued)

m - 60 :	Сс	st	Servi	ices	Ca	ses
Type of Service	Amount	Per Cent	Number	Cost per Unit	Number	Cost per Case
	\$			\$		\$
Nutritionist	_	-	1	_	_	_
Transportation:	_		81			
taxi	284	1	298	0.95	_	_
ambulance	360	2	24	15.00	_	-
Appliances	38		2	19.00	} 37	1.03
Loan equipment	-	-	67	14.50	} "	1.00
(Rental) equipment Medical supplies	248	1	17	14.59	1	6.00
Medication	23	• •	_	_	2	11.50
Nightsitter (hours)	13		20	0.65		
Occupational therapy supplies	1	• •			1	1.00
Laboratory test	-		-	_	-	_
X-rays Friendly visitors	_				_	
Orderly	_	_	_	_	_	_
Meals-on-wheels	_	_	-	_	-	-
Recreational therapy	-	_	-	_	-	-
Total	20,026	100				
			Plan '	'B'' (77 Pa	tients)	1
Nursing:						
voluntary agency	3,949	37	1,175	3.36	57	69.28
official agency	-	-	-	-	_	-
Social service	_	_	_	_	_	-
Physiotherapy Occupational therapy	2,798	27	396	7.07	36	77.72
Speech pathology	2,190		390	7.07	_	-
Homemaking:						
days	-				_	
hours	1,678	16	1,592	1.05	26	64.54
Nutritionist	_	_		-	-	
car			_	_		_
taxi	644	6	57	11.30	****	-
ambulance	-	_	-	_	-	_
Appliances	-		-	_	etites.	- magain
Loan equipment	629	6	71	8.86	26	24.19
(Rental) equipment Medical supplies	158	2	_ / 1	0.00	28	5.64
Medication	434	4	_	_	63	6.89
Nightsitter (hours)		_	-	_	_	_
Occupational therapy supplies	- 05	-	-	-		10.00
Laboratory test	95 140	1	16 11	5.94 12.73	5	19.00
X-rays Friendly visitors	I .			12.73	-	23.33
Orderly	1	_	_	-	-	-
Meals-on-wheels	and and	-	-	-		_
Recreational therapy		-	-	_	_	_
Total	10,525	100				

TABLE 4 (Continued)

		I	Plan "C"	(57 Patients	s)	
Type of Service	С	ost	Ser	vices	Ca	ises
Type of Service	Amount	Per Cent	Number	Cost per Unit	Number	Cost per Case
	\$			\$		\$
Nursing: voluntary agency official agency	5,228	41	2,118	2.49	49 -	106.69
Social services Physiotherapy Occupational therapy Speech pathology Homemaking: days	350 160 108	33 1 1	57 171 27	6.14 0.94 4.00	18 13 4	19.44 12.31 27.00
hours	6,082	48	6,444	0.94	28	217.21
Nutritionist		_	-	-	_	destay
car	35 203	2	49 29	0.71 7.00	- 16	12.69
Appliances Loan equipment (Rental) equipment Medical supplies Medication Nightsitter (hours) Occupational therapy supplies Laboratory test X-rays	230 34 7	- - 2 - 1		0.14	23 - 17 - 5 9	13.53 - 6.80 .78
Friendly visitors Orderly Meals-on-wheels Recreational therapy	112 29 21	1 	180 93 44 6	1.20 0.66 3.50	13 6 3 4	18.67 9.67 5.25
Total	12,599	100				
Nursing:		P	lan "D" (1	68 Patients	3)	
voluntary agency official agency	17,997	49	_	-	141	127.64
Social service Physiotherapy Occupational therapy Speech pathology Homemaking:	- 70 -	••	-	-	10	7.00
dayshours	14,688	40	*****	-	- 72	204.00
Nutritionist Transportation:	_	-	-		-	_
taxiambulance	2,078	6	-		104	19.98

TABLE 4 (Concluded)

Type of Service	Cost		Services		Cases	
- jpe of 201,100	Amount	Per Cent	Number	Cost per Unit	Number	Cost per Case
	\$			\$		\$
Appliances	108 1,688 - - - -	5			25 49 - - -	4.32 34.45 — — — — —
Meals-on-wheels	_	_		_	_	-
Recreational therapy	_		_	-	entires	ecologi
Sub-total Physicians' house calls	36,629 2,320	100		_	117	19.83
Total	38,949					

¹ Exclusive of administrative cost (overhead).

² Adapted from the following sources:

Plan "A": City of Toronto, Department of Public Health, "Fourth Annual Report - Pilot Home Care Program" (original program).

Plan "B": Ibid., (expansion program).

Plan "C": The Moose Jaw Community Home Care Program, Moose Jaw, Sask., First Annual Report, April 1, 1962 - March 31, 1963.

Plan "D": Report of the Home Care Medical Programme, Out-Patient Department, Winnipeg General Hospital, October 1, 1961 — September 30, 1962.

The table shows, for each of the four plans studied, the high proportion of costs and services accounted for by home nursing and housekeeping. These two items account for approximately 30 to 50 per cent of the total cost for services. They are the main cost items in each plan. It is difficult to draw any more meaningful comparisons because of the varying structure of these plans. Some interesting comparisons may be made regarding the unit costs of various services, though here again organizational and accounting differences must be relied on to explain certain wide discrepancies.

This should be borne in mind also when seeking such indicators as the per diem cost of home care and similar cost figures. Physicians' services are shown separately for Plan "D" because in most plans they are not considered as part of the services of the plan, but rather the direct responsibility of patient and attending physician.

Table 5 shows, for each plan included in the foregoing table, the percentage of patients receiving a specific type of service:

TABLE 5
PERCENTAGE OF PATIENTS RECEIVING A SPECIFIC TYPE OF SERVICE

m	Percentage of Patients Receiving the Service					
Type of Service	Plan "A"	Plan "B"	Plan "C"	Plan "D"		
Nursing Social service Physiotherapy Occupational therapy Speech pathology Homemaking Nutritionist Transportation. Appliances Loan equipment (Rental) equipment Medical supplies Medication Nightsitter Occupational therapy supplies Laboratory tests X-rays Friendly visitors Orderly Meals-on-wheels Recreational therapy	13 41 79 39 - 1 2 - 1	74 - 36 - 34 - - 34 36 82 - 6 8	86 32 23 7 - 49 - 28 - 40 - 30 - 9 16 - 23 11 5 7	90 -3 -33 -58 -13 24 		

Source: Adapted from the following sources:

Plan "A": City of Toronto, Department of Public Health, "Fourth Annual Report - Pilot Home Care Program" (original program).

Plan "B": Ibid., (expansion program).

Plan "C": The Moose Jaw Community Home Care Program, Moose Jaw, Sask., First Annual Report, April 1, 1962 — March 31, 1963.

Plan "D": Report of the Home Care Medical Programme, Out-Patient Department, Winnipeg General Hospital, October 1, 1961 — September 30, 1962.

To the extent that organized home care plans are being set up as an alternative to hospital care for economic reasons, ways and means had to be developed of measuring the respective costs against each other, including both of the major cost components: capital and operating cost.¹ Since depreciation is not a shareable cost under the Hospital Insurance and Diagnostic Services Act, it is not included in the operating costs as computed for the hospitals under the Act. With regard to the capital costs, any reduction in the number of hospital beds to be built, due to the existence of home care programmes, would be a saving. The same is true of most other capital equipment in hospitals though some of it may be used by home care patients. Although an extensive home care programme may some day require more substantial office space and perhaps buildings to house it, this cost would be small in comparison to that of hospital construction, and the time when home care plans will require elaborate office space is still a long way off. As it is now,

¹ Depreciation conceptually is somewhere in between these two categories.

the administrator of a home care plan and perhaps her staff (consisting of a full-time or part-time secretary) will often be found tucked away somewhere in a corner of a hospital. The amount of this saving cannot be estimated until data become available on the experience with a universally established and accepted plan in a representative community and until it is established what services are to be included. All that can be said now is that every bed whose construction is rendered unnecessary by alternative care facilities constitutes a saving of its construction cost. But just how many beds can be saved will depend on the scope of home care and the extent to which we are prepared to supply it with services and equipment otherwise available only in the hospital.

In comparing hospital and home care costs (capital costs and still more so operating costs) the question arises: cost to whom? The public or private sector of the economy? Within the public sector, would it be one agency or the other, e.g., the hospital insurance scheme, grants administration, or the public health or welfare services? Within the private sector, cost to the individual, voluntary agency, or other community organization?

The per diem cost of home care plans is calculated, similarly to the per diem hospital cost, by dividing the number of patient days into the operating cost (expenditures) during the accounting period. Comparisons may be deceptive, however, because of the aforementioned lack in uniformity among various plans. This is particularly also a matter of the inclusion or exclusion of cost figures regarding certain services arranged for patients but not necessarily under the immediate administrative auspices of the plan. Also, while the same type of service, say physiotherapy, may be offered by several plans, the actual use made of it and hence its costs will be largely affected by the availability of resources (in this case physiotherapists) in the respective communities.

The National Health Grants designed to encourage home care plans as such, favour variety rather than uniformity in order to make possible the evaluation of different types of plans. While all this may be necessary at this stage of development, it does not make for comparability in the accounts and statistics and this adds to the difficulties of evaluating different plans. After 15 years of experimentation one wishes that things were a lot farther advanced than they are in the field of home care.

The per diem costs in hospital and home care are based on the respective number of days of care. Days of care, in turn, are determined by the dates of admission and separation. The criteria for admission to and separation from a hospital on the one hand, and for admission to and discharge from home care on the other are, of course, different. As a consequence, not all patient days under home care are necessarily "hospital days saved". In some cases, home care services

¹ For instance, a hospital based home care plan may arrange for out-patient services at the hospital but these would remain a charge to the out-patient department rather than the home care plan.

² Unless the home care plan is specifically designed for keeping patients only for the duration of hospital home care.

are tapered off gradually instead of being stopped suddenly on separation. This makes for more patient days on the one hand and lower cost on the other, thus tending to reduce the per diem cost under home care. In order to facilitate better evaluation of home care versus hospital, the attending physician is sometimes requested to indicate how many of his patients' days would be spent in hospital had it not been for the home care plan. But there is a difference in the degree of certainty between actually putting a patient in the hospital and saying "I would have put him there if...". Even if we do get from this some approximation of "hospital days saved", we have to go one step further and ask what kind of hospital or institution. If we are to compare costs, there is a very substantial difference between the acute treatment hospital, chronic and convalescent institution or nursing home. Nor does the daily hospital cost of caring for a patient remain constant even during the same stay. The higher cost during intensive care at the early acute stage will often gradually decline before the patient is discharged to his home or to a home care plan. In these cases the cost of the hospital days actually saved will be lower than the average per diem cost since the stage of the high cost intensive care will have been passed. Although a breakdown of "hospital days saved" is attempted by some plans, it will again reflect some personal judgment of where the patient should be rather than where he would be if hospitalized.

With these warnings against ready comparisons of data from different plans or of home care and hospital costs, we can look at the cost figures from some selected home care plans and obtain a rough idea of the range of values involved.

The Toronto Pilot Home Care Program was established for the purpose of using "the existing or readily improvisable resources of the community in the care of patients in their own homes under guidance and direction of the private physician".¹ This operation began in 1958. The relationship of hospital services to home care and vice versa did not figure in this programme explicitly though the implications were there. In September 1961, the Toronto plan undertook an additional project "to obtain estimates of the cost of providing service to selected patients in their homes in lieu of hospitalization or to shorten hospital stay".² This project, being aimed specifically at hospital patients (potential or actual), secured the active interest of the Ontario Hospital Services Commission and has been carried out separately from the original general programme of the Toronto pilot study. Hence we have under the Toronto programme two plans: the original general one and the expansion plan aimed specifically at hospital patients.

For the original general plan the per diem cost of services provided exclusive of the administrative overhead, was \$2.57 for the fourth year of operation of the plan.³ The administrative cost was provisionally estimated to be \$2.24 per diem, resulting in a total per diem cost of \$4.81.

¹ City of Toronto, Department of Public Health, Fourth Annual Report, Pilot Home Care Program, April 1, 1961 - March 31, 1962, p. 2.

² Ibid.

³ The four-year average per diem cost of services only was \$2.67.

For the expansion project the corresponding components of the per diem cost were \$4.01 for services, and \$3.43 for the administrative overhead, resulting in a total of \$7.44 per diem.

It should be noted that the cost figure for the original plan covers certain services for which no charge was made. They are: 84 visits of the public health nurse, 62 social service contacts, one service by a nutritionist, 81 car trips, and 67 items of loan equipment. In regard to the administrative cost, the report expresses the belief that it will be reduced to about \$2.00 per diem once the plan emerges from the experimental stage.

In respect to the original general plan, the report estimates that of the total 7,789 days of care, 2,293 (or 29 per cent) represented an alternative to care in an institution whereby the 2,293 days would be distributed as follows among institutions of different type:

acute treatment hospital	130 days, or 6 per cent
convalescent hospital	153 days, or 7 per cent
chronic illness hospital	853 days, or 37 per cent
mental illness hospital	47 days, or 2 per cent
nursing home	63 days, or 3 per cent
home for aged	1,047 days, or 45 per cent
Total	2,293 days, or 100 per cent

Two conclusions can be drawn from this in regard to this particular type of plan:

- 1. over two-thirds of the days of care are not considered as substitutes for care in an institution (though they do no doubt mean better care at home than the patient would get without the plan),
- 2. only 6 per cent of otherwise institutionalized days of care would be spent in an acute treatment hospital, the remainder in institutions with operating costs hardly higher than the cost of home care.

The picture is different, however, for the expansion plan designed specifically to keep or take patients out of the hospital. Here it is estimated that of the 2,625 patient days of home care, 1,525 (or 58 per cent) would otherwise have had to be spent in an institution. Almost all of these (except for 19 days in a chronic hospital) would be days in an acute treatment hospital. The following account is given of the hospital days saved:

Type of hospital	Days saved	Per diem cost	Cost
Acute treatment hospital Chronic hospital	1,506 19	\$27.60 \$10.00	\$41,565.60 \$ 190.00
Tota1	1,525		\$41,755.60

^{1 &}quot;Physicians were asked to estimate the number of hospital days saved by use of the Home Care Program as an alternative to hospital care", City of Toronto, Department of Public Health, op. cit., p. 20.

The home care cost for the same number of days (At \$7.44 per day) was about \$11,346. This is about 27 per cent, or little over one-quarter, of the corresponding cost of hospitalization. The cost of the entire treatment under home care (including the days not considered as saved from hospitalization) for the same patients amounts to about \$19,530, or still less than half of the alternative hospital cost.

The first year of operation of the *Moose Jaw Community Home Care Program*² resulted in a cost of \$3.65 per patient day. This figure does not include the cost of physicians' services, drugs, nor any of the following other services which were provided free of charge: loan equipment (to 23 patients), bus for handicapped persons (15 trips), X-ray (2). The report covers the experience with 57 patients. It contains the following comment regarding the cost:

"The average daily cost for the Home Care Program is \$3.65 per patient per day (excluding the cost of drugs) and is by no means cheap. It represents \$110.00 a month per patient and after all does not take into account the cost to the family of feeding, clothing and bedding the patient, all of which are provided in our nursing homes and in our hospitals."

"Home Care therefore not being a cheap service should be instituted for a patient, not as an economy measure, but as a logical step in the patients' treatment, towards the furtherance of his well being."

What saving the monthly cost per patient of \$110 constitutes, depends of course on whether we compare this with the cost of stay in an acute treatment hospital or a nursing home; and the choice between the two depends on the condition of the patient. In this connection it is useful to look at the data the report produces for a few selected individual cases. For two multiple sclerosis cases, the average daily cost for each was about \$4.50, for another one, with spastic paraplegia, it was \$6.20.

In the Home Care Medical Program of the Winnipeg General Hospital the per diem cost for the period from October 1, 1961, to September 30, 1962, was \$1.59.4

Of the 32,031 patient days of care during that period, 19,972 (or 62 per cent) are considered as institutional days saved, distributed as follows:

hospital days (acute and chronic)	7,558
nursing home days	12,414
Total Total	19,972

¹ This is assuming that the home care per diem cost remains the same throughout the stay of the patient. Actually, however, the per diem cost may well be higher for the days that can be considered as hospital days saved.

² The Moose Jaw Community Home Care Program, First Annual Report, April 1, 1962 - March 31, 1963, Moose Jaw, Sask.

³ Ibid., p. 24.

⁴ Based on: Report of the Home Care Medical Program, Out-Patient Department, Winnipeg General Hospital (Oct. 1, 1961 — Sept. 30, 1962). Cost figures were adjusted so as to exclude the cost of physicians' house calls in order to achieve greater comparability with other plans and with hospital costs. House calls accounted for \$2,320, or 6 per cent of the cost of all services (excl. administrative costs). The per diem cost reported by the plan was \$1.66.

The report gives the "average hospital bed day cost" in the Winnipeg area as \$25 and the nursing home bed day cost as \$5. On this basis, the costs of institutional and home care would compare as follows:

hospital days saved	\$188,950
nursing home days saved	\$ 62,070
total cost of institutional care saved	\$251,020
actual cost of home care for same period (19,972 days)	\$ 31,755
Net saving	\$219,265

Even if the total cost of the home care plan (i.e., including also the days not considered as substituting for institutional care, and the cost of physicians' home calls) were deducted, the saving would still amount to \$197,513. But again, the question arises: saving to whom? One also has to consider services provided without a charge being made to the programme such as certain services provided by the out-patient department of the hospital. These would likely reduce but not wipe out the saving shown. An earlier report on the operation of the plan hastens to point out that the financial saving "is of course not the prime reason for the program".

The per diem cost to the respective plans and the share of the administrative component (overhead) are as follows:

Cost component	Plan "A" (95 patients)		Plan "B" (77 patients)		Plan "C" (57 patients)		Plan "D" (168 patients)	
	\$	%	\$	%	\$	%	\$	%
Service	2.57	53	4.01 ¹	54	1.99	55	1.14	71
Administration	2.24 ¹	47	3.43 ¹	46	1.66	45	0.45	29
Total per diem	4.81	100	7.44	100	3.65	100	1.59	100

¹ Provisional figures.

A comparison of the per diem cost among the plans is, as has been stated, very difficult and largely meaningless not only because of the varying range of services provided but also because of the varying practices of charging the cost of some services to the plan. The surprisingly high proportion of administrative costs may be partly explained by the still largely experimental stage of the plans and the fact that in the volume of care provided they may not have reached their

¹ Fyles. T.W., et al., "The Home Care Medical Program of the Winnipeg General Hospital", Canadian Medical Association Journal, 85,1097-1100, Nov. 11, 1961.

optimum capacity. The Toronto programme forecasts a reduction in the share of the administrative costs once the programme "has got down to businesslike proportion".

The report goes on to say:

"One may have to explain why the administrative component at its best constitutes so high a percentage of total cost, greater than that found in most enterprise. This should present no difficulty as one makes it clear that in a home care program the administrative individual carries duties of promotion and interpretation, and of actual personal contact, far in excess of those of the basic executive function and that this feature will continue more or less for all time to be a determinant of this element of cost. Administration, in other words, is and will be more than overhead as commonly conceived."

Similar difficulties, as in the inter-plan comparison of per diem costs, arise in any attempt to compare the per diem cost of home care with that of hospital care. We have seen that even in a hospital-based home care plan not all days are considered to be alternatives for hospital care. The per diem cost, on the other hand, is calculated for all days of care. It is possible that the home care per diem cost would be higher, were it calculated separately for the days actually substituting for hospital stay. Some general idea of the order of size of the per diem cost under home care on the one hand and hospital care on the other may be gained by a comparison of the range of these costs. The cost under the four selected home care plans ranges from \$1.59 to \$7.44 per patient day. The corresponding cost per hospital day in 1960 ranges from \$4.94 in mental hospitals to \$20.61 in general hospitals.²

HOME CARE - ORGANIZED AND OTHER

The concept of organized home care has been useful in directing our attention to the new developments in the organization of health services outside the hospital. The new element is not any particular new type of service but a new type of organization created specifically to coordinate several services. Home care services existed before the advent of this new type of organization and they continue to exist side by side with what we now call organized home care plans.

Source: Dominion Bureau of Statistics, Hospital Statistics 1960, Volume VI, Ottawa: Queen's Printer, 1962.

¹ City of Toronto, Department of Public Health, Fourth Annual Report, Pilot Home Care Program, April 1, 1961 - March 31, 1962, p. 21.

Costs per hospital day in 1960 were as follows:
all hospitals
general and allied hospitals
general
chronic and convalescent
other special
mental hospitals
\$19.23
mental hospitals
\$4.94
tuberculosis hospitals
\$10.41

Thus, visiting nursing services for instance are provided in Toronto, Moose Jaw, and Winnipeg (as well as other places where organized home care plans operate) not only within the organized plan but also outside the plan to patients not admitted to the home care plan. These may be cases when apart from the doctor only one type of service is required so that the agency providing the service (for instance the local branch of the Victorian Order of Nurses) also supplies the only administrative organization needed. The distinction between home care provided by individual agencies and by an organized plan is one of degree rather than of the basic concept or effect of the service. The basic distinction to be made is that between the in-patient service of the hospital rather than the services available outside the hospital. This distinction is based not only on the question of cost of in-hospital versus out-of-hospital care, but also on the emerging trend towards minimizing in-hospital stay, for physical as well as mental illness, as part of the growing interest in rehabilitation in both these areas.

IMPLICATIONS

Having described organized home care, a brief summary of its implications on the future organization of health services may be given.

Home care plans so far have not been the outcome of national, provincial, or regional planning, but have originated locally for a variety of reasons and under different circumstances. Whatever their origin, however, home care plans — like medical group practice — result in the coordination of hitherto separate and independent services. In most cases home care plans are established as alternatives to hospital in-patient care. It follows that if care outside the hospital is to be substituted, a range of services must be provided similar to that available to the patient in an institution. These services may well exist in the community, or could be made available, but their mere existence has not automatically resulted in their effective use. To achieve this end, it has been found necessary to establish a coordinating agency in the form of the organized home care plan. Once such a plan is in existence, the physician can refer his patients to it very much as he refers them for admission to the hospital, indicating the services required and without the need on his part to deal with each of the various service agencies separately.

This is an important attribute of organized home care, and one which merits far greater attention than it has hitherto received. Where there is close contact between the hospital and a home care programme, we have, in fact, a model for coordinated health services in the community. The shortcoming of most existing plans is their limited scope. Even in cities where they exist, they mostly cover only a small part of the population.

With the exception of the home care services provided by the public health nurse in British Columbia.

What remains to be done, then, is to secure wider acceptance by patients and especially by physicians. As far as the patients are concerned, the complete coverage of all personal health services by insurance or prepayment would remove the now existing financial discrimination against services not covered by the hospital insurance scheme.

The gradual acceptance of organized home care by the medical profession will follow, once the effectiveness of organized home care has been demonstrated and the physician is convinced that home nursing and the other home care services are not an attempt to reduce his management of a case or interfere with it, but rather provide a welcome extension — very much like the hospital services — of the scope of his own services.

If, from the administrative and economic point of view, home care is hailed as a most desirable substitute for in-hospital care, it should be borne in mind that the picture of the respective costs is by no means as clear-cut as sometimes presented, and that home care will create a number of new problems once it grows beyond its present largely experimental stage of a limited number of local plans.

Foremost among these problems is that of an adequate supply of personnel to provide the services needed outside the hospital: nurses, the various therapists, social workers, homemakers, and others. Partly at least this new demand will be compensated by a reduced demand, or rather by a lower increase in the demand, for corresponding services in the hospital. To evaluate this, however, further studies are needed of the impact of home care on the hospital services. It is not enough to know how many hospital days can be saved by home care and what the respective per diem cost is. We must also bear in mind the respective needs for personnel. In regard to nursing, for instance, more home care means more visiting nursing but the number of nurses will not necessarily be proportional to the reduced nursing required in hospitals. For one thing visiting nursing requires a different training from that of the hospital nurse. It is less intensive than the continual nursing supervision provided to patients in the hospital. The visiting nurse may see a patient several times a day or just once every few days or even every few weeks. On the other hand, the visiting nurse spends more time travelling from patient to patient, and from the office to patients and back again. The hospital nurse probably spends shorter periods, but more frequently, discussing cases with the attending physician and other hospital departments whereas the visiting nurse attends generally only periodic case conferences which, however, may take up more of her time.

Then there is the yet not fully evaluated impact of increased home care on the physician's time and pattern of service. Mention has been made of the fact that the physician can see a greater number of his bedfast patients more quickly and easily in the hospital than if he had to visit them at their homes. Early transfer of a patient from the hospital to home care may be a saving in terms of hospital days and costs, but what does it do to the demand on the physician's time?

To the extent that home care is going to replace hospitalization, it will no doubt imply an increased demand for home visits by the physician. But the fact that the nurse and other health workers will also visit the patient will relieve the physician to some extent. He may find, however, that the case conferences held regularly by the home care personnel will take up more of his time than he would normally spend discussing a case with the visiting nurse or a physiotherapist. Usually a patient is referred to home care at a stage when he no longer requires daily or very frequent visits by his doctor.

Any increased demand on the physician's time has to be measured against the improved care resulting first from the services by the entire home care team, and second from the thorough discussion of all medical and social aspects of a case at the case conference. Further study is needed to determine if an extension of the home care programmes will affect the respective functions of the general practitioner or the specialist. The same applies to the greater attention given to the coordination of rehabilitation services reaching beyond the hospital stage and also requiring medical supervision and follow up. These may develop new aspects of general practice which, in order to be handled effectively, must also be reflected in the education, training, and role of the general practitioner.

Home care itself provides the opportunity for strengthening the medical curriculum and supplementing the traditionally hospital-centred education. Internship in a home care plan or practice within it, gives the student or the practising physician some insight into the patient in his natural environment. It will demonstrate that medicine can, and perhaps should be practised more often outside the hospital. It will supply the background for the study and practice of social medicine in regard to the patient. It will also achieve a greater awareness on the part of the physician, the nurse, and other health workers of their respective role as well as of the necessary interaction among the members of the health team. All those engaged in home care and the various forms of rehabilitation services will become much more sensitive in perceiving "how patient care is organized as a social process".1

Organized home care plans, as now constituted, do not include the local public health agencies and the preventive services provided by them. But there is no necessary dividing line between these two types of organization, as there is no longer a clear distinction in context between public and personal health services. The public health nurse in British Columbia provides also bedside nursing. Visiting nurses under private auspices already provide preventive services to mothers and children, as well as other forms of health education to other patients. Whether it is preferable to have one type of nurse trained in "public health" perform both duties or whether the two functions should be separated remains to be

¹ Christman, L.P., "Nurse-Physician Communications in the Hospital", Journal of the American Medical Association, November 1, 1965, p. 542.

seen. Partly it is, of course, a matter of volume of work. But there is no reason why organized home care could not encompass the personal health services provided by the public health agency in order to reduce the multiplicity of agencies the patient has to deal with.

The new approach to psychiatric care emphasizes the advantages of treating patients in the community and in their familiar environment rather than isolating them in institutions. Rehabilitation, in physical and mental illness, also stresses the benefits of the earliest possible return of patients to their own social setting or one resembling it as closely as possible. All these trends mean new demands on a home care organization which puts at the physician's disposal the range of services required by patients who do not need special services of the kind available only in the hospital, including full-time nursing supervision.

The new emphasis on rehabilitation, in physical as well as mental illness, has other implications regarding the role and organization of the various health services. These will be briefly reviewed in the following chapter.

One may conclude, in regard to the cost of home care, that in most cases home care will be cheaper than hospital care where 38.3 per cent of the operating cost in general and allied special hospitals is accounted for by general services¹ other than those provided by the service departments of the hospital.² There is the further saving in capital cost, due to the reduced expenditure for hospital construction, if fewer hospital beds are needed. But this reasoning is based on the viewpoint of the agency financing either home care or hospital service, not that of the patient or the community. Comparisons of the total operating cost would have to take into account the cost of maintaining the patient at home, which may be increased substantially where extensive housekeeping and other ancillary services are required.

That is: dietary with 13.1 per cent; laundry, linen service, and housekeeping with 8.3 per cent; the rest being accounted for by administration, and plant operation and maintenance (based on Dominion Bureau of Statistics, Hospital Statistics 1960, Vol. VI, Hospital Expenditures, Ottawa: Queen's Printer, 1963, p. 45).

² Such as, for instance, nursing which accounted for 26.5 per cent of total expenditure (ibid.).

REHABILITATION

Organized home care has been described not as a new specific type of service but as a new way of organizing a number of specific services which have developed in their own right. Similarly, rehabilitation is a philosophy or objective rather than a new type of service although greater emphasis on this objective and increased scientific knowledge in the various related fields have led to the development of new disciplines and services specifically oriented towards rehabilitation. Nor is the concept of rehabilitation confined to the health field. There are many categories of people who for one reason or another may cease to actively contribute to the life of the society of which they are a member, or who may, in fact, become a burden or even threat to that society. Among them are the criminal, the mentally ill, the physically handicapped, the vocationally displaced and unemployed, and increasingly in modern times the insufficiently educated.

The means by which society copes with its apparently useless or dangerous' members have varied throughout the ages. In ancient times the feeble or impaired were either killed or exposed to be killed by wild beasts and other hazards of nature. In biblical times some were expelled from their community and left to fend for themselves. Criminals were, and still are in many societies, done away with or in any case isolated from society. The latter procedure has also been applied until recently to the mentally ill and to some affected by contagious diseases. With changing attitudes and the developing sense of religious and moral conscience, guided by a sense of responsibility for one's fellow man, there developed gradually the attitude of charity towards at least some categories of the former outcasts. Those who were unable to look after themselves were maintained at public expense and by private charity. There was, in fact, little else that could be done according to contemporary knowledge and resources.

Eventually, however, society has become aware that some of these lives, which formerly constituted a complete liability, could be restored fully or partially to some constructive function in the community, or at least the degree of their dependence be reduced. Thus developed the concept of rehabilitation in regard to

For instance, the criminal, the severely mentally ill, or those suffering from serious infectious diseases.

the criminal, the socially displaced, and the physically or mentally handicapped. The broader field of rehabilitation is mentioned here in order to stress the fact that the concept is not limited to the health field. It is important to bear this in mind because certain rehabilitation techniques and services are common to the socially as well as the physically and mentally handicapped; to be effective, therefore, certain aspects and stages of rehabilitation of the sick must be coordinated with general rehabilitation. This applies, for instance, in the area of educational and vocational services. The logical extension of the new and positive approach towards disability due to illness and injury is a corresponding attitude towards those who by congenital defects or impairment during early childhood have to be trained rather than retrained, or habilitated rather than rehabilitated.

The new orientation towards the handicapped can be traced to the early experience of the charitable agencies, the workmen's compensation movement which began in Europe before the turn of the century, and the experience during the two World Wars with war casualties, as well as with accident and disease victims in the civilian labour force. Changing attitudes towards the handicapped would have remained of little avail, however, had they not been accompanied by the simultaneous development of scientific techniques and equipment which removed the former stigma of hopelessness.

If, in the discussion of home care, we had to refer to the need for coordinating the health services proper with other social services, such as homemakers or meals-on-wheels, the problems of coordination and organization are much
more complex in the field of rehabilitation. Rehabilitation being concerned with
restoring the patient to his optimal function in the home and the community (or
even only in the institution), the health aspects must be closely related to a variety of services which are provided under the auspices of welfare, education, or
labour agencies. If the problems of integrating health services as such have eluded a satisfactory solution for so long, it is not surprising that the coordination
of rehabilitation services has been so slow taking shape. It is more encouraging
that the Vocational Rehabilitation of Disabled Persons Act of 1961 has laid the
groundwork for establishing the necessary coordination.

The organizational problems in the field of rehabilitation are well outlined in a report on the National Health Grants programme:

"The slow pace of development in rehabilitation is directly related to its broad scope. There are few fields in which the problems of organization and of administration of a program are as complex and baffling as they are in rehabilitation."

The report then continues by explaining the complexity of the problem:

"As each community, province or nation mobilizes its resources to cope with the problems created by crippling disease or injury, it quickly encounters a host of difficult administrative and organizational problems. These arise in part from the difficulties of harnessing together the large number of professional and other disciplines

¹ Department of National Health and Welfare, National Health Grants 1948-1961, Ottawa: Queen's Printer 1962, p. 164.

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which are required to complete a well rounded and integrated rehabilitation team. Not only general practitioners, but various specialists and experts in medicine, physical medicine, surgery, orthopaedics, hospital and nursing care, psychiatry, psychology, physiotherapy, social work, education, vocational guidance and training, employment placement and welfare have a part — an indispensable part — to play in carrying through a satisfactory program of treatment and re-establishment of the handicapped. Even with this elaborate array of specialists and experts, it is not possible to let the handicapped person find his way unaided through the complex maze of rehabilitation services. To have any chance of success the list of personnel must also include a reasonable quota of skilled case workers, administrators, co-ordinators or other facilitating personnel to provide a framework within which relevant skills of the various specialists are brought together into a coherent pattern known as 'team work'''. 1

This description does by no means exhaust the list of skills and disciplines involved. The engineering aspects of modern prosthetic devices, for instance, bring new fields of knowledge within the range of rehabilitation, and so do the social sciences and new methods of therapy and education of the handicapped.

The administrative complexities of coordinated rehabilitation services in countries with a federal constitution, like Canada or the United States, are intensified by the involvement of not only three levels of government but also of several subject matter departments² at each level, as well as of voluntary organizations with varying interests in terms of geographic or subject matter coverage, and with varying relationship to the official agency.³

Speaking of rehabilitation in the context of health services, we think of it as beginning with restoring the optimum condition of body and mind, and next as proceeding to reducing any consequences of illness and injury on a person's social and economic role. It is the former aspect which is usually referred to as medical rehabilitation or restoration, and one might be tempted to draw the line there and say that this is as far as the concern of the health agencies goes. This, however, would defeat the purpose of total rehabilitation because the stages of medical and social restoration are not necessarily successive stages but often go hand in hand; even where they are chronologically successive they must be carefully dovetailed and the ultimate social objective must be kept in mind from the first steps of active treatment. For the same reason, there is no clear-cut dividing line between treatment and medical restoration. Elements of rehabilitation have always been present in the treatment of disease or injury. Early ambulation and evoking a positive attitude on the patient's part are part of the process, as well as the various specific therapies. But it used to be that medical care was considered to be completed when the disease process was brought under control, leaving the psychological, social and economic adjustment entirely up to the individual, his family, or to other community agencies. The modern concept of rehabilitation has developed from the aforementioned roots in industry, under wartime and post-war conditions, and in relation to specific groups such as the blind or the paraplegic.

¹ Ibid.

² For instance, health, welfare, labour, education.

³ Royal Commission on Health Services, Vol. II, Ottawa: Queen's Printer 1965, pp. 161-163.

The long-standing interest of workmen's compensation boards is reflected in the provisions of the provincial Acts. The Ontario Act, for instance, provides:

"To aid in getting injured workmen back to work and to assist in lessening or removing any handicap resulting from their injuries, the Board may take such measures and make such expenditures as it may deem necessary or expedient ..."

Successful rehabilitation has, in fact, been looked upon as the very goal of the entire compensation process. It thus constitutes an objective guiding the entire process of care provided under the programme:

"Rehabilitation in the broadest meaning of the term is an indivisible and integral part of the entire compensation system. We, like other observers, have been unimpressed by the results of attempting to graft a rehabilitation programme on to a purely forensic system, which inhibits the rehabilitee from accepting such services until the court settlement is completed."²

This again illustrates the point that rehabilitation must be the underlying philosophy or objective of treatment procedures rather than a separate specific service or a single well-defined phase in the course of care. It would be futile, therefore, attempting to determine where the treatment stage ends and rehabilitation begins. The latter is a continuum leading to the patient gaining as closely as possible his original function within his environment. Not even this may appear as a distinct point in time because continuous services, observation, or follow up may be required. This fact, together with the wide range and variety of services ancillary to the principle of rehabilitation, render it difficult to determine the administrative responsibility, jurisdictional as well as financial, for services which fall under the auspices of health departments, voluntary agencies, welfare organizations and agencies, education authorities, or labour departments. To limit the discussion to the purely medical aspects of rehabilitation would nullify the break-through accomplished by recognizing the indivisibility of the entire rehabilitation process. Interestingly enough, though, there are areas in which the problem of coordinating the various stages of rehabilitation has been largely solved. They lie in the jurisdiction of such agencies as the Armed Forces, Department of Veterans Affairs, and Workmen's Compensation Boards. In these cases, one and the same organization combines the function of the health, welfare, and training agency, being concerned not only with the medical restoration of the handicapped, but also with the other aspects of rehabilitation such as training or retraining, and income maintenance.

While the concept of rehabilitation is not limited to specific types of services or certain stages in the treatment of the patient, there are certain disciplines and facilities geared particularly towards medical restoration. They have resulted from the developments in physical medicine, surgery, and prosthetic techniques, as well as new concepts in the treatment of psychiatric disorder, and recognition

¹ The Workmen's Compensation Act, Ch. 437, Revised Statutes of Ontario, 1960, Section 53.

² Steele, E.C., "Rehabilitation Program in Ontario for Occupational Injuries", Journal of the American Medical Association, January 9, 1960, p. 163.

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of the psychological aspects of impairment on the one hand and restoration on the other. To ensure the adequacy of personnel and facilities, as well as the provision of the resources required for research in this field, is the task of the health agencies. These matters will, therefore, remain among the functions of health departments, medical schools, voluntary health organizations, and the professions concerned, no matter who is ultimately responsible for the coordination of all rehabilitation services.

MEDICAL REHABILITATION: FACILITIES AND PERSONNEL

Major trends in the health problems of the Canadian people are reflected in the National Health Grants Programme. After the first World War, as again after the second, venereal disease had emerged as a pressing public health problem. To deal with it was the objective of the first Health Grant established in Canada in 1919. In May 1948, the federal government announced the establishment of a National Health Programme under which funds would be made available to the provinces to assist them in extending and improving their health services. The Programme provided for a series of grants to deal with specific problems, conceived at the time as "the first stages in the development of a comprehensive health insurance plan for all Canada". At that time rehabilitation was not seen as something sufficiently circumscribed and prominent to warrant a grant of its own, but rehabilitation projects were supported by other grants such as the Tuberculosis Control Grant, Mental Health Grant, and particularly also the Crippled Children Grant which had among its objectives the development of a rehabilitation and training programme for the group of children coming under the terms of this grant.

The concept of rehabilitation having developed from workmen's compensation and wartime manpower needs, it is not surprising that the early rehabilitation programmes were almost exclusively aimed at the restoration of occupational and vocational ability. In 1951, the Working Committee on Medical Rehabilitation of the Conference on the Rehabilitation of the Physically Handicapped eliminates from rehabilitation procedures two groups of hospital patients: 1) those with "simple ailments which require no rehabilitation", and 2) those at advanced ages. Among the latter, the report mentions "those ailments associated with old age or occurring in the aged when it is obviously hopeless to expect any form of rehabilitation to fit the patient for future service to the community" so that these patients can be discharged from hospital "and do not require rehabilitation". The Conference left the emphasis on vocational rehabilitation, and it was only logical, therefore, that it recommended that the coordinator for a Canadian rehabilitation programme be appointed through the federal Minister of Labour. The stress on

Department of National Health and Welfare, op. cit., p. 8.

² Conference on the Rehabilitation of the Physically Handicapped, *Proceedings*, Toronto 1951, pp. 90 and 91.

³ Ibid., p. 97.

vocational rehabilitation later found its way into the Act regulating the Canadian rehabilitation programme.

The year 1953 saw the Medical Rehabilitation Grant created "to aid in the provision of medical and ancillary rehabilitation facilities and services, including the training of personnel and the conduct of surveys and studies within each province". At the same time the federal and provincial health departments began to establish rehabilitation divisions. By 1961, the grants for Crippled Children and Medical Rehabilitation were combined into a new Medical Rehabilitation and Crippled Children Grant, with a larger amount available than under the old grants but all now on a matching basis. Of the \$140,406 available under the new grant for the year 1960-61, \$81,517 was expended by the provinces.²

The Medical Rehabilitation Grant has been used to assist in the training of personnel such as physiatrists, physiotherapists, occupational therapists, prosthetists, orthotists, social workers, speech therapists, nurses, and administrators. Support has also been given to the establishment of new training centres for these occupations and to the purchase of equipment for hospitals and rehabilitation centres; the latter service was later discontinued with the institutions coming under the hospital insurance scheme. The same applies to the payment of salaries of staff in physical medicine and rehabilitation departments in hospitals, and for certain services in these departments. While some of the functions of the rehabilitation grants were eventually absorbed by the hospital insurance programme, the development of rehabilitation facilities has been supported also under the Hospital Construction Grant.

Although considerable progress has been made since that time the following still holds true:

"... comprehensive assessment and restorative programs directed against disability and chronic disease are still far from being adequate to meet the present health needs of Canada. Many factors are together responsible for such a situation; and too frequently still the prevention or limitation of disability and of chronic invalidism in the routine management of acute disease or injury is not accomplished because adequate facilities are not readily available at the appropriate time and place."

And, one might add, even where the facilities and services are available, they are not fully accepted and used by physicians and patients.

Just what constitutes an adequate supply of rehabilitation personnel, facilities, or equipment is difficult to determine for several reasons. We have already observed that treatment at any stage contains elements of rehabilitation. Rehabilitation services are provided also in hospitals which have no formal rehabilitation department, and physicians or visiting nurses apply physiotherapy otherwise given

Department of National Health and Welfare, op. cit., p. 165.

² *Ibid.*, p. 167.

³ Ibid., p. 169.

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only by specially trained personnel. Another difficulty in quantifying rehabilitation needs is the absence of reliable data on the extent of the need. There is no telling what the case load may be of those who could profit from medical rehabilitation:

"no matter how big your rehabilitation facilities may be they seldom seem adequate to meet all of the hidden need .. $^{\rm H\,1}$

We are certainly still far from having reached the saturation point. If bed-population ratios are poor indicators for evaluating the adequacy of hospital beds generally, they are even poorer guides to rehabilitation or physical medicine beds. The continuing trend towards earlier ambulation, community treatment of the psychiatric patient, and home care for a wide range of handicaps further affects the situation. The availability and adequacy of such services outside the hospital and on an out-patient basis will influence the need for hospital beds.

Desirable bed ratios ranging from 0.5 to 1 bed per 1,000 population are sometimes mentioned, as is the desirability of a rehabilitation unit in all general hospitals above a given size (from about 100 to 300 beds), or a rehabilitation centre in communities with about 300,000 population or over.

None of the recent major surveys of hospital needs, carried out in various parts of Canada, specify the number or ratio of rehabilitation beds required though they invariably stress the need for strengthening the rehabilitation services in hospitals. The Saskatchewan Hospital Survey distinguishes various levels of rehabilitation services, the most elaborate being provided by "base services", followed by "regional", "district", and "itinerant services". Because of the unknown reservoir of the disabled in the community and the growing trend towards treatment outside the hospital, the Survey of Hospital Needs in Metropolitan Toronto arrived at the conclusion that "there is no magic formula for determining the number of beds or facilities required for the care of chronically ill children or of the physically incapacitated".3

Nevertheless, physical medicine and psychiatry have developed a body of knowledge and techniques aimed distinctly at the rehabilitation of the handicapped. This development has led to the establishment of rehabilitation units in hospitals and rehabilitation centres to supplement these units where necessary and it has also brought about a strengthening of rehabilitation services (personnel) to be provided

¹ Carpendale, M.T.F., "The Need for Medical Rehabilitation: Experience in Alberta — 1956—1959", Rehabilitation in Canada, Summer 1963, p. 17.

² Summary of "Saskatchewan Hospital Survey and Master Plan 1961", Part I, a Report of the Hospital Survey Committee, Health Services Planning Commission, Saskatchewan Department of Public Health, Regina, 1963.

³ "Hospital Accommodation and Facilities for Children in Metropolitan Toronto", Part Six of a study by the Committee for Survey of Hospital Needs in Metropolitan Toronto, Nov. 1962, p. 43.

in hospitals with or without a formal rehabilitation unit or designated rehabilitation beds.¹

The services typical of rehabilitation procedures have increased in Canadian hospitals in recent years, and what distinct units and centres are in operation in public institutions are of comparatively recent origin, following those established earlier by the Department of Veterans Affairs and Workmen's Compensation Boards. The following table shows the upward trend in the percentage of general hospitals providing some of these services in organized units:²

	Per Cent of General Hospitals with Organized Units			
Service				
	1959	1960		
Physical medicine	2.5	2.5		
Physiotherapy	26.7	31.5		
Occupational therapy	3.4	3.8		
Speech therapy	1.7	2.5		
Social service	4.4	4.6		

The trend is more pronounced in the chronic hospitals:3

	Per Cent of Chronic Hospitals			
Service	with Organized Units			
	1959	1960		
Physical medicine	5.4	12.2		
Physiotherapy	42.9	70.8		
Occupational therapy	23.2	43.9		
Speech therapy	7.1	17.1		
Social service	10.7	12.2		

By 1962, according to the Department of National Health and Welfare, physical medicine and rehabilitation services were established in:

- 30 general hospitals,
- 10 chronic hospitals,
- 14 children's hospitals,
- 12 hospitals administered by the Department of Veterans Affairs.

Physical medicine 9
Physical therapy 46
Occupational therapy 6
Medical social work 11

The population of Saskatchewan is estimated in the report to reach 971,204 by 1970.

¹ The Saskatchewan Hospital Survey and Master Plan 1961 (op. cit.) estimates the minimum number of personnel required to staff "adequate hospital-centered rehabilitation programmes in Saskatchewan 1961—1970, as follows:

² Based on: Dominion Bureau of Statistics, Hospital Statistics, Vol. II, 1959 and 1960, Ottawa: Queen's Printer, 1962 and 1963.

³ Ibid.

⁴ Communication of unpublished data.

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There were 43 independent rehabilitation centres, distributed as follows:

16 general rehabilitation centres (for children and adults with any type of disability),

- 23 children's rehabilitation centres (including 11 for cerebral palsy),
 - 4 workmen's compensation centres (Quebec, Ontario, Alberta, British Columbia).

Medical rehabilitation services in nearly all of the in-patient hospitals and centres¹ are directed by orthopaedists or paediatrists.

The beds set up by 1962 in these rehabilitation units and centres totalled 18,840. Of these, 784 beds in 15 hospitals were designated as "rehabilitation", "orthopaedic", "geriatric", "convalescent" or "polio". Of the 1,693 beds in the 10 chronic hospitals, 349 were similarly designated. Fourteen rehabilitation centres with in-patient facilities had a total of 933 beds.²

The Department of National Health and Welfare estimates that, in 1962, at least 20,000 disabled persons were treated as out-patients or in-patients at the general and children's rehabilitation centres in addition to some 12,000 treated at the workmen's compensation centres.

The statistics of rehabilitation facilities are difficult to evaluate, however, because of the aforementioned broad meaning of rehabilitation which renders it difficult to judge, for instance, what beds earmarked for rehabilitation are actually used for this purpose. A rehabilitation unit in a hospital will be found to serve not only patients in that unit but also in most other departments of the hospital. Certain rehabilitation centres, for example, which have no in-patient facilities of their own, have beds earmarked for their patients in adjacent hospitals. There were in 1962 at least 111 beds in hospitals set aside for the use by rehabilitation centres.

On the whole, rehabilitation services in Canada must still be described as insufficient. What has been said recently of Ontario4 applies generally:

"In certain areas there are few or no facilities for physical restoration, speech therapy, job assessment, psychiatric care, or provision of braces or artificial limbs. Most centres are located in the larger cities but even in communities where the greatest number of rehabilitation services exist they are barely adequate and there are waiting lists for admission."

¹ Generally covered under the provincial hospital insurance schemes.

 ² 567 beds in 9 general rehabilitation centres,
 186 beds in 4 children's rehabilitation centres,
 180 beds in workmen's compensation centres.

³ 91 beds for general rehabilitation purposes, 20 beds for children. Department of National Health & Welfare, communication of unpublished data.

⁴ Godfrey, G.M., Jousse, A.T.: "Rehabilitation Facilities in Ontario", in Canadian Medical Association Journal, 89, 657-662, September 28, 1963.

Also as mentioned before, the potential of rehabilitation is as yet far from being fully appreciated by the disabled and even by some physicians.

In addition to the facilities and services provided in hospitals and rehabilitation centres, there is a considerable number of clinics operated by voluntary agencies providing certain rehabilitation services but not the wide range found in the centres. These may be operated for certain types of disabilities or certain services such as physiotherapy. Some of these agencies also employ mobile units to reach their patients.

PROSTHETIC DEVICES

An essential part of rehabilitation services is the supply of prosthetic devices where such devices are needed to compensate for the loss or reduced function of limbs or other organs of the body. Those coming to mind immediately are artificial limbs and braces of various types, but conceptually similar compensation is provided by eyeglasses, hearing aids, dentures, and the various devices modern science has begun to produce for the replacement or the support of internal organs of the body.

Crutches, artificial limbs and parts of limbs have been known and used for centuries. Treasure Island's Long John Silver with his crutch is a perfect example of successful rehabilitation thanks to a prosthetic device: he was a man of substance with a banker's account, and he could manoeuvre "with the speed and security of a trained gymnast", holding his own in a fight. Peter Pan's foe, Captain Hook, remained no less successful in his chosen career as a pirate when a metal hook replaced the hand he had lost to a crocodile. Captain Ahab had his leg "devoured, chewed up, crunched" by the white whale but had it well enough compensated to lead the pursuit of Moby Dick; his prosthesis was an ivory joist, carefully fitted and secured with leather straps, pads, and screws. James Bond, in one of his adventures, encounters Doctor No who had two pairs of steel pincers in place of hands which he was able to use very effectively. What so fascinated writers from Rovert Louis Stevenson to Ian Fleming about their handicapped and rehabilitated characters was not so much the technical accomplishment of their respective prosthetic devices as the motivation and dogged determination of those affected.

Fiction has depicted what actually occurred in real life. Wars and occupational accidents have been the prime sources of physical handicaps, to which we have now added the traffic accidents and, increasingly, the congenital defects. Like rehabilitation in general, the development of prosthetic devices in particular has been stimulated by a concern for the injured soldier and workman. In both cases the motive of society for doing something about these handicaps has been partly the very selfish one of preserving and restoring manpower strength, but increasingly the community recognized its debt towards the veterans who, having been prepared to sacrifice their lives and health, deserve every possible public

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effort to diminish the consequences of their impairments. The great contributions to the development of prosthetic devices by the Department of Veterans Affairs fall into this category. It was the missing or deformed limbs of the thalidomide babies which sparked a new interest in the application of the most modern engineering techniques to the manufacture of artificial limbs. The devices developed by the Rehabilitation Institute of Montreal and the Crippled Children's Centre in Toronto will lead to a much wider application of modern engineering techniques in the manufacture of prosthetic devices generally.

The complexity of modern electronic and other devices makes the closest possible collaboration between the physician, prosthetist and orthotist on the one hand, and the scientist and engineer on the other an imperative prerequisite for the fullest application of scientific techniques to the rehabilitation of the disabled. The motivation and will power on the part of the afflicted individual have always been among the factors stimulating progress in this field. They have led to the most promising advances where this determination was combined with the necessary scientific knowledge.

The following few highlights of the history of prosthetic devices are gleaned from a far more thorough presentation prepared by R.M. Turner for a Conference of Prosthetic Superintendents of the Department of Veterans Affairs in 1962. Over a hundred years ago, in 1861, a Mr. J.E. Hanger had a leg amputated in the American Civil War. Having previously been an engineering student, he first made a prosthesis for himself and then also for others which led the State of Virginia to commission him to produce artificial limbs for veterans. The result was a new industry being established for the production of prosthetic devices. Half a century later it was again the combination of amputation and engineering knowledge which prompted Marcel Desoutter, a flying contemporary of Blériot and Farman, to design a prosthesis to substitute for a leg lost in a flying accident. He introduced the use of light-weight metal, adopted after the first World War for regular use in Britain. During the war, the French Red Cross and the British Government were instrumental in introducing United States manufacturing methods to European countries. In 1921, representatives of veterans' organizations from several European countries, meeting at Geneva, appealed to the International Labour Office to launch a three-stage programme:

- 1. to mount a prosthetic research programme,
- 2. to set up a permanent exhibition, and
- 3. to spread information so that up-to-date knowledge of modern prosthetic developments would reach the *civilian* amputee groups.

These objectives, however, were not immediately implemented though they served to spark wider interest in the subject matter. In Canada, the Military Hospital Commission, during World War I, found that government ownership promised adequate research facilities and the best means of liaison with other governments. This led to the establishment of what is now known as the Prosthetic Services in the

At the Prosthetic Centre, Sunnybrook Hospital, Toronto, May 14-17, 1962.

Department of Veterans Affairs.¹ The casualties of World War II prompted an international conference on amputations and artificial limbs held in Canada in 1944, under the auspices of the National Research Council. It resulted in the formation of committees in several countries, including Canada, to promote artificial limb research and development. A similar committee was established in the United States. From the aircraft industry came the use of laminated plastics for the manufacture of prosthesis, thus culminating the use of various materials from heavy metal, leather and metal, wood, and later light metal. The committee later transferred its functions to the Department of Veterans Affairs.

Reference has already been made to the achievements in various rehabilitation centres throughout Canada where research into the design of prosthetic devices had been sparked by the thalidomide affair, and where liaison is maintained with developments in the United States, European countries, and the Soviet Union. It would appear that the time has come for establishing closer contact and coordination of effort among these various agencies, as well as with industry, in the field of prosthetics and orthotics.

Furthermore, the evolution from the crudely strapped-on leg of Captain Ahab to the complex electronic and other extraneous-powered devices now adapted to prosthetic uses means the development of new specialties of which the physician must be aware though the technical details will have to be left to specialists in this field.

While it has been said of the medical profession that "the procurement and fitting of prostheses and braces is their responsibility as part of the full treatment of the patient", this still is only a goal and not yet a reality. The prescription, fitting, and checkout of prosthetic devices requires closest consultation between physician and prosthetist, as well as the physiotherapist or occupational therapist, and possibly also the social worker who would be aware of the type of prosthesis required in the particular situation of individual patients. The design and construction of an artificial limb, for instance, depends not only on the type of impairment but also on the type of work the patient will have to perform with it; the required weight and strength of the device for someone doing office work will not be the same as that for a patient who will have to do heavy lifting.

All of this indicates that the contributions made to rehabilitation by modern prosthetic devices have vastly increased. At the same time their complexity, and hence, also their cost, have risen. For those whose disability results from the absence, loss, impairment or deformity of limbs or organs, rehabilitation cannot be achieved without adequate compensating devices. These devices need maintenance, repair, and occasional replacement. Particularly in the case of children, prosthetic

¹ Transferred on April 1, 1965, to the Department of National Health and Welfare.

Gilpin, R.E., in introducing the Conference of Prosthetic Superintendents (Department of Veterans Affairs), Prosthetic Centre, Sunnybrook Hospital, Toronto, May 14-17, 1962.

³ Ibid.

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devices need major periodic adjustment or renewal to adapt them to the growing process. The lifetime cost of such devices may thus range up to several thousand dollars.

The problem of rehabilitation is common to all age groups. The need is particularly great however, in the habilitation of babies and children with malformations of a congenital nature or acquired early in life. The thalidomide story has focussed public attention on the plight of these children and their parents. While the deformities resulting from this drug may be particularly severe, similar cases of congenital deformities have occurred before and will continue to accur, and these infants are no doubt as deserving as are the victims of thalidomide. Observing these children in the rehabilitation centres, one is deeply moved by their distressing situation and the strain they place on their parents, but one is also struck with the amazing benefits these children can derive from the ingenuity of modern prosthetic techniques. A device enabling a toddler, for instance, with hardly any traces of upper extremities to guide a spoon in a level position from the table to his mouth is a costly proposition, but it is only with the help of such devices that there is any hope for these children to lead anything resembling a normal life. The children will depend on their prosthesis for a whole lifetime. To an older person, too, an artificial limb or other device or aid can make the difference between many years of complete dependency on others and self-care or even employment. In either case the prosthesis will contribute not only to the well-being of the patient but also bring about direct or indirect economic advantages.

The growing number of handicapped children now surviving birth and very ea early childhood, and the increasing number of those becoming handicapped at later ages will create increasing demands on an ever expanding variety of prosthetic devices. From the growing technical intricacy of these devices there results a demand for more specialized personnel trained in prosthetics and orthotics, who must be provided with the facilities and the equipment necessary in rehabilitation departments or centres for the preparation and fitting of prosthetic aids.

THE PROCESS OF TOTAL REHABILITATION

The preceding section has shown that there are certain health services — such as those of physical medicine and the provision of prosthetic devices — which can be identified as primarily concerned with rehabilitation rather than treatment; the latter may be considered to end with arresting or controlling the disease process or injury.

Medical rehabilitation concentrates on the physical and mental residual handicaps but, as stated before, treatment must, from the very first, take into consideration any rehabilitation problems that may eventually arise. In reviewing the rehabilitation facilities in hospitals it was emphasized that rehabilitation services are not limited to patients in these units. Rehabilitation centres, for their part, provide services beyond the treatment and medical restoration stage.

Disease and injury may result in consequences that lie outside the physiological processes of body and mind. They may affect the individual's capability and reaction in regard to job, school, family, or community. The services directed towards the removal or alleviation of these consequences - we may call them social as distinct from medical rehabilitation services - are not health services proper, and more likely than not come under auspices of other than the health agencies. Nevertheless, such services are triggered by health defects and they can be fully effective only if integrated with the services aimed at treatment and medical restoration. Thus, we find educational or vocational training facilities, vocational guidance and placement officers located in rehabilitation facilities although some of these services and personnel may be under the jurisdiction of the education department or employment service. The sequence of medical and social rehabilitation must be a continuous one: not only is a clear division lacking, but it is also imperative that there be no break between the various phases of rehabilitation. It remains to be determined, however, where the administrative and financial responsibility of health agencies (both public and private) ends, and that of welfare, education, or labour departments start.

Rehabilitation provides a major field of activity for voluntary organizations, mostly related to specific diseases or certain groups of the population such as children. As far as government involvement is concerned, all three levels of government function in this field in one way or another. Local agencies provide the actual services; the local government carries a large part of the welfare load; and education and training are matters of provincial jurisdiction. The federal government's participation, primarily in the form of financial support, consultative services, and coordination, is not limited to the health and welfare field, but extends also into the jurisdiction of the federal Department of Labour. The latter Department is responsible for the administration of two Acts which have a bearing on rehabilitation, namely the Technical and Vocational Training Assistance Act of 1960, and the Vocational Rehabilitation of Disabled Persons Act of 1961. The former Act enables the federal government to enter into agreements with the provinces "to provide for the payment by Canada to the province of contributions in respect of the costs incurred by the province in undertaking a programme of technical and vocational training in the province" of several categories of persons, specifically also disabled persons. This is referred to as "Program 6 - Program for the Training of the Disabled".

Reference has already been made to organized home care and community mental health services as providing the important framework for rehabilitation outside an institution. These new forms of organization require close coordination between health and social services. The chain of rehabilitation services, on the other hand, often means a gradual fading out of the health services proper to give way to welfare services including sheltered employment, education and training services, placement services, and various forms of follow-up services with or without medical participation. Many of these services offer excellent opportunities for voluntary action by groups organized to provide certain types of services.

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The broad spectrum of services required indicates the need for the effective coordination of all the services bearing on rehabilitation. This basic principle is recognized in the Vocational Rehabilitation of Disabled Persons Act. Despite its limitations, this Act is a remarkable piece of legislation because it is the first, and so far the only systematic attempt to achieve the coordination of a wide variety of services. The coordination extends horizontally by drawing together services provided by many agencies, and vertically by establishing accord between the various levels of administration.

The Act provides for federal contributions to the provinces amounting to half the cost of comprehensive programmes for the vocational rehabilitation of disabled persons. Under the Act, federal activities are coordinated and in the provinces coordinators of rehabilitation services have been appointed who are responsible for ensuring adequate coordination also at the local level. The department responsible for implementing the provisions of the Act at the federal level is the Department of Labour, assisted by the National Advisory Council on the Rehabilitation of Disabled Persons. All agencies concerned with the application of the Act deserve great credit for building up, in the few years since its passage, an impressive and generally effective organization. The Act has, however, a serious shortcoming, namely its limitation to *vocational* rehabilitation, aimed primarily at the potentially gainfully employed.

This restriction excludes the large number of disabled persons who, because of their age or the degree of their disability, cannot hope "to become capable of pursuing regularly a substantially gainful occupation" as required under the Act, but who could nevertheless profit from rehabilitation services to the extent of greater independence from the help of others. These people, if rehabilitated, may be able to live in the community instead of in an institution, or they may be able to dispense with another person looking after them. Rehabilitation in these cases means returns in happiness and life satisfaction for the patients as well as those around them, and it also means the economic benefits of a reduced need for attendance and care. Until all those who can profit from rehabilitation services are covered by one coordinated system, the coordination remains incomplete, thus seriously reducing the effectiveness of the programme. As the Act stands now. difficulties exist not only in those cases which are obviously excluded from the provisions of the Act but also in the numerous borderline cases where much time and effort is wasted in determining under which department's jurisdiction a particular case may come.

The original limitation of the Act is understandable in view of the previously quoted opinion of the 1951 Conference that rehabilitation has nothing to contribute to the disabled older people. This view has changed, however. Today it is recognized in Canada as elsewhere that there are many categories of patients of all ages who can, and hardly any who cannot, profit from some type of rehabilitation services. C. L. Hunt, in reporting on rehabilitation in Great Britain and Denmark notes, in regard to the care of the aged the importance of physical and mental

stimulation so necessary for the prevention of further deterioration. Bed care, he comments, is a refuge only in acute illness or in the terminal stages of physical disintegration:

"This approach in the care of the aged, far from being cruel, lifts many out of their vegetable existence, restores them to some degree of companionship and interest, reduces their tendency to incontinence, restores some degree of social competence and reduces the amount of nursing care required by them. So marked are these advantages that relatives are more readily induced to care for the aged in their own homes, especially when they can rely on the local hospital readmitting the patient immediately on the advent of a medical or social emergency. Thus, chronic hospital beds are freed for the care of those in more urgent need, with a significant financial saving to the treasury." ¹

These conclusions emphasize the importance of rehabilitation as well as the need for adequate home care services for the care of physical as well as mental illness and dependency. What has been said of the aged applies equally to persons in all age groups who suffer from a permanent disability which in the past may have been classified as total but which may well respond, at least to some degree, to modern rehabilitation procedures and the newly developed prosthetic devices of various kinds, particularly those operated by electronic or other extraneous power sources. ''Disability respects neither age nor social status, consequently the field of rehabilitation applies to all walks of life and is equally important to the aged and infirm as to the child who suffers from congenital defect.''²

All these cases should be brought under the provisions of the Act. It is true that the Act is being broadly interpreted and that, for instance, homemaking is specifically accepted in the agreements with the provinces as a "substantially gainful occupation", but the Act remains restricted to the concept of gainful employment, a concept dating back to the concern for war casualties and injured workmen.

The Act should apply to all disabled persons who may profit from any of the services available under its provisions regardless of the individual's vocational potentialities. It must be remembered that even where vocational rehabilitation is indicated, it remains one aspect only of total rehabilitation:

"Vocational rehabilitation is only one aspect of the total concept of rehabilitation. The crippled child and the sick elderly and infirm adult are not vocational rehabilitation candidates... Persons who because of severe disability and/or age, are at present not considered satisfactory for vocational rehabilitation, nonetheless require rehabilitation services."

¹ Hunt, C.L., A Study of Rehabilitation in Great Britain and Denmark, Victoria: Department of Health Services and Insurance, 1960, p. 9.

² Canadian Association of Physical Medicine and Rehabilitation, brief submitted to the Royal Commission on Health Services, Toronto, 1962, p. 16.

³ The Government of Manitoba, brief submitted to the Royal Commission on Health Services, Winnipeg, 1964, p. 33.

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If the Department of Labour administers the Act, this fact should not be allowed to restrict the eligibility to those groups in which the Department has a direct interest. Departmental jurisdiction over rehabilitation has, in fact, always been a controversial issue, which is not surprising with so many agencies being involved. The Royal Commission on Government Organization (Glassco Report) recommended the transfer of the Civilian Rehabilitation Branch from the Department of Labour to the Department of National Health and Welfare.¹ But this would mean merely substituting one of the several interested agencies for another. One would conclude that the most satisfactory solution would be an independent agency on which the various departmental interests are represented. The National Advisory Council on the Rehabilitation of Disabled Persons should continue, with representation from the federal departments concerned, provincial departments, voluntary agencies, health professions, universities, and employer and employee organizations.

As some kind of regular occupation commensurate with the faculties of the rehabilitated person is important not only for his financial support but also for his morale, greater attention should be given to the problem of employment for the handicapped. This may be in the form of sheltered employment, either as the final solution or whenever possible as a stepping stone to regular employment, or it may mean employment in the labour market. It would seem that industry could absorb a greater number of persons who are handicapped in some way but not sufficiently to interfere with certain types of work. The possibility of a legal requirement for the employment of a certain percentage of handicapped people might be studied, but perhaps more effective would be an intensified education campaign aimed at employers and labour organization with a view to changing employment practices and policies in the light of a realistic appraisal of what people with various handicaps can do.

The restoration of the sick or handicapped to employment or some kind of function in the community remains the end product of an often long chain of diagnostic, treatment, and rehabilitative services, but this end product must be kept in mind from the very beginning of the patient's care. The distinction and separation of psychiatric care from the remainder of the health services is disappearing. For both types of patients there will be greater emphasis on community care and follow up in preference to institutional care. In connection with the National Health Grants programme, it has been said:

"It seems logical to expect that the most immediate development in programs and facilities for medical rehabilitation and chronic care will be oriented first towards their incorporation in the routine comprehensive health care of all patients with a threatening or already established disability. Personnel should be trained, equipment should be acquired and services should become available for control of disability and adequate chronic care at the same time that other preventative and curative measures are developed in a total scheme for competent medical care."²

Royal Commission on Government Organization, Vol. 3, Services for the Public, Ottawa: Queen's Printer 1962, p. 212; and Vol. 5, The Organization of the Government of Canada, Ottawa: Queen's Printer 1963, pp. 89-90.

² Department of National Health and Welfare, op. cit., p. 170.

Such a total scheme of rehabilitation would have to extend, as demonstrated, beyond the stage of competent medical care. To ensure the necessary continuum of care is an especially complex matter in the case of handicapped children, and particularly those with severe and permanent, or at least chronic, handicaps. As far as the organization of the necessary services goes, the basic problems are similar for the mentally handicapped as for the physically disabled. What the Canadian Medical Association Journal said in regard to mentally retarded children has wider application:

"Medical leaders in the care of handicapped children advocate that the small residential facility of about 200 beds should be organized to serve a single county or perhaps several counties, depending on the population demands. These should be located in the principal medical centre and, where possible, in a university setting. They would provide special education, nursing, medical and psychiatric care for those patients who, because of special needs or because of their behaviour, cannot reside either in their own homes or in the more open community, foster or group homes. The diagnostic and evaluation clinic should be organized in a manner previously described, to serve a number of counties having the aforementioned facilities, and should be located at a university centre. It should be staffed with well-trained personnel, with representation from the specialties of pediatrics, psychiatry, psychology, social work, education and nursing. This group of specialists would form the referral centre for the region. From here a program would be designed for each child, offering a continuum of service that would utilize any or all of these various services when needed.

"Those of the profession who work with children will recognize the difficulties in distinguishing one handicapping condition from another, as is so well illustrated by the series of articles which appear in this issue. It will be noted as well that there is a certain amount of overlapping of services in many centres today because of our inability to separate the needs of one child from another. It is evident that many conditions other than mental retardation could be helped by this type of program. It is important that both program directors and communities accept a broad responsibility for the child and recognize that a continuum of service means both active and chronic care, and that because a child fails to respond to the 'acute care' as we would like him to, he must not be relegated to some isolated custodial centre, to be forgotten."

This, by and large, expounds the function of the rehabilitation centre as distinct from the rehabilitation facilities in general and chronic hospitals. The centre provides the more specialized services extensively on both an in-patient and outpatient basis. For those requiring continuous institutional care, the philosophy of smaller institutions is based on the better quality of care they can provide as well as on the beneficial effects of greater proximity to the patients' home community. Patients in rural areas could obtain at least some of these services through mobile units.²

It would be mistaken to assume that rehabilitation applies only to the chronically ill and permanently handicapped. While these patients may require the

^{1 &}quot;Community-Centred Care for the Handicapped Child", editorial, Canadian Medical Association Journal, November 16, 1963, p. 1040.

² Gingras, G., 'Rehabilitation', Canadian Journal of Public Health, May 1963, p. 209.

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largest share and widest range of rehabilitation services, the application of rehabilitation concepts is considered "an essential element of good medical care and is applicable to patients suffering from acute as well as chronic medical and surgical conditions".

As has been the case in regard to health services generally, the absence in the past of systematic planning for comprehensive rehabilitation services has led to the haphazard development of these services. It is to the credit of public and voluntary organizations that provisions were made from time to time to cope with specific problems such as those of workmen, veterans, crippled children, the mentally ill or retarded, and others. This has resulted not only in gaps but also in duplication because there is a growing number of organizations with an interest in some aspect of rehabilitation.² Because the various agencies have often operated independently and in isolation, programmes are frequently unbalanced and contain contradictions and duplications.³ The pioneering of these organizations has made our present rehabilitation services possible by providing energetic initiative and constructive leadership which, however, has too often come up against vested interests of various groups which render the desirable and necessary coordination difficult.⁴

The systematic development of care and rehabilitation facilities for the disabled requires an assessment, now lacking, of the needs in this area. Little or no information exists on the incidence, prevalence, and distribution of the various disabilities and the characteristics of those affected. Registries of the handicapped, like that in British Columbia, constitute a hopeful beginning but have been slow developing. Registries serve not only statistical purposes, but also the needs for continuing care, follow up, and evaluation. Data derived from the registries will also throw new light on the causation of disabling conditions, particularly if by the use of modern record linkage procedures they are related to sources of other data.

The main needs then in the field of rehabilitation are for an evaluation and assessment of the extent and characteristics of disability among Canadians, for adequate facilities and personnel,⁵ for research and for adequate coordination of all services necessary for the complete medical and social rehabilitation of all those who suffer residual disability from disease or injury and who may benefit in some way from rehabilitation. Employment for the employable handicapped must be part of the process of rehabilitation.

¹ Canadian Association of Physical Medicine and Rehabilitation, op. cit., p. 16.

Welfare Council of Ottawa, brief submitted to the Royal Commission on Health Services, Ottawa 1962, p. 4.

³ Saskatchewan Co-Ordinating Council on Rehabilitation, brief submitted to the Royal Commission on Health Services, Regina 1962, p. 5.

⁴ School of Hygiene, University of Toronto, brief submitted to the Royal Commission on Health Services, Toronto 1962, p. 46.

⁵ See Gingras, G., op. cit., for the shortages of physiatrists, physiotherapists, occupational therapists, speech therapists, audiologists, prosthetists, orthotists, and nurses.



SYNTHESIS: MULTIPLICITY WITH A PURPOSE

This discussion of emerging trends in our health services began with the observation that continuing and probably increasing specialization and proliferation in the health services are an integral part of modern scientific and technological advance. This trend could be halted or slowed only at the expense of new knowledge gained and assimilated.

The many different auspices under which our health services operate add to the multiplicity of services. The existence, side by side, of public and voluntary effort also is basically sound. To voluntary initiative we owe many if not most of our present services; in many cases needs and problems were recognized and solutions pioneered by voluntary agencies before governments did or could act. With new needs constantly arising and being recognized there will always remain room for voluntary effort in many areas of our health services. Regional differences must also effect the patterns of health services.

Cutting across Canada's social, economic and cultural diversity is our constitutional organization. Public administration is shared among the three levels of government: local, provincial, and federal, with a possible new regional level being inserted between the gradually waning local and the provincial jurisdictions. While these tiers are particularly noticeable and accepted in the sphere of government, they also permeate the area of private voluntary organization where, not infrequently, we also find the national organization assigning greater or lesser autonomy to provincial and local branches.

All this would make our health services appear uncoordinated and ineffective. This is true to a certain extent, but the situation is not as bad as it may seem for two reasons: first, we have seen here and there the germ of developing coordination; and second, in a country the size of Canada with its regional differences, a certain degree of variety and elasticity in the organization of community services is desirable or even necessary. Variety encourages experimentation with different methods and approaches to similar problems so that one region may profit from the experience of another, and governments from that of voluntary organization. Furthermore, a system preserving various forms of organization will be more

flexible and adaptable to local conditions and needs than one where guidance and policy-making is entirely in the hands of one agency. But even to derive these benefits, some liaison, coordination, and meeting of minds is necessary so that varying experiences can be evaluated.

This study concerns itself neither with the methods of financing health services nor the administrative machinery necessary for either a private or public insurance scheme; nor does it propose to deal with the organization of over-all planning or administration of health services at the provincial and federal levels. The study is rather concerned with the actual services provided at the local level, ensuring that available services can be mobilized to the best advantage of physician and patient in the most effective and efficient way. While it will be essential to aim at the widest possible range of services to be available to all Canadians, it should be remembered that availability of the "best" possible services is not necessarily synonymous with the "most" possible services being used.

A monolithic system of health services would be much easier to design, simpler to administer, and perhaps less costly to operate. It would mean, however — apart from the political, philosophical, and emotional objections — abandoning the advantages inherent in involving a variety of agencies. It is worth trying to preserve these advantages, but it will not be possible to preserve them if the various services and agencies operate independently of one another and develop, or fail to develop, without regard to the needs, since they are all aimed at contributing to the same goal, i. e., the health of the people. Some way must be found by which they can be brought together so that they will meet effectively at the focus of their objective: the patient.

Many of the briefs submitted to the Royal Commission on Health Services¹ by organizations concerned with the over-all aspects of providing health services to Canadians strongly emphasize the need for coordination of the many components required to provide adequate care according to modern standards. This, in fact, appears to many as an essential prerequisite for the effectiveness of our future health services. Some of the briefs contain specific proposals regarding the form in which coordination should be achieved, others are content to point out the urgency for some action. The basic reasoning in all cases may be summarized by the statement of the Canadian Welfare Council that "because the health of the individual is indivisible, health services should be closely coordinated and health care for the individual should be integrated. Similarly the broad range of health and welfare services which an individual or family may need should form a coordinated network".²

For instance, the British Columbia Federation of Labour, Canadian Association for Retarded Children, Canadian Federation of Agriculture, Canadian Hospital Association, Canadian Labour Congress, Canadian Medical Association (British Columbia Branch), Canadian Public Health Association, Canadian Welfare Council, Community Chest (Greater Vancouver Area), Metropolitan Hospital Planning Council (Vancouver), Ontario Medical Association, Ontario Public Health Association, School of Nursing (University of Toronto), School of Hygiene (University of Toronto).

² Canadian Welfare Council, brief submitted to the Royal Commission on Health Services, Toronto, 1962, p. ii.

One may ask how our health services would fare in an emergency, be it brought about by war or accidental or natural castastrophy. It is interesting to note that somebody looking at our health services, with an emergency situation in mind, should consider it the first requirement to establish coordination. In a temporary emergency this would result in a more authoritarian solution than one would choose as a permanent arrangement, but the first of ten points developed for municipal emergency health services is the appointment of a director to assume responsibility to bring all existing agencies together. The second requirement is the establishment of a planning organization, the third the appointment of a health advisory council. Next, the emphasis is on liaison with existing institutions and getting the support of associations and societies, the latter with the comment that "the strong support of recongized professional associations is vital but it is considered unwise to assign operational responsibility to such groups."2 Evidently the basic elements needed to ensure coordination of all agencies in order to achieve a common goal already exist. The goal, i.e., to work together effectively for the health of the community, remains the same although the methods required to set up the necessary organization will be different in normal times from those during a temporary emergency. In fact, the existence of a permanent organization would largely eliminate the need for hastily created emergency measures. In an emergency, however, the organization will be run by decree rather than by mutual consent. In normal times it is the other way round. Wegman puts it this way when he discusses the matter of communication and coordination: "We start out on the premise that in any organized program a certain number of orders must be given by the leaders, but that, in contrast to a military situation, public health programs are not likely to succeed if every member of the team is not aware of the rationale behind the order and willing to accept it as well reasoned rather than something to be followed blindly."3 If an efficiency expert or administrator were given the task to design, without regard to existing patterns, an efficient system of organized health services, the blueprint coming off his drawing board would probably resemble more the kind of organization found in countries where all essential health services are provided by government. From the purely administrative point of view, the simplest solution is to have all services under the same auspices - presumably government - and this would greatly reduce the problems of operation, coordination, financing, planning and evaluation. In the Soviet Union, for instance, all health services are completely integrated. Yet, there is a good deal of flexibility because it is a system of "centralized policy and decentralized execution" with considerable delegation of responsibility peripherally and enormous diversity in local practices.4 The need for a certain amount of decentralization arises, of course, from the size of the

¹ Hardman, A.C., Municipal Emergency Health Services, Précis No. 3.03, Ottawa: Department of National Health and Welfare, August 1962, p. 1.

² Ibid., p. 3.

Wegman, M.E., "Problems of Communication and Coordination within Health Programs", American Journal of Public Health, December 1961, p. 1819.

⁴ Roemer, M.I., "Highlights of Soviet Health Services", The Milbank Memorial Fund Quarterly, October 1962, pp. 388-389.

country and regional differences which explain the diversity found in local practices despite central direction and uniform basic policies.

Jeremy Bentham, around the turn of the 18th century, went far beyond the need of decentralizing the actual services even in a country where, as in England, distances were much less of a problem than they were in Canada. He proposed that a country be divided into districts with "say from thirty to forty miles in diameter", so that they could be made more or less self-sufficient also in regard to the diffusion of knowledge. In the central town of each district he wanted to see the following "establishments" maintained: a professor of medicine, a professor of surgery and midwifery, and a hospital, in addition to professors in the fields of the natural sciences and of the veterinary art. "The first advantage", as Bentham put it, "resulting from this plan would be the establishment, in each district, of a practitioner, skilled in the various branches of the art of healing. A hospital, necessary in itself, would also be further useful, by serving as a school for the students of this art."

These are some of the features, but only some, found in Canada's health service pattern. They exist to a far lesser extent or not at all in smaller and hence more homogeneous countries where health services are also largely administered as well as financed by government. In all these countries such systems seem to work well; they may appear as an enticing solution — and in the opinion of some, an inevitable one — for Canada's health services. There are, no doubt, lessons to be learned from the Soviet system and others, but we have to ask ourselves always why something works well elsewhere and why in North America things are different. If we are to learn from the experience of others, as we should always do, it must be not so much a matter of copying but of selectively adapting, and still preserving what is good about the existing situation.

The various organizations and agencies in the health field in Canada are the result of organic, if haphazard and unsystematic, development. They have developed within the framework provided by the social, geographic, economic, and cultural patterns that make up Canada. They have been instrumental in achieving the present relatively high standard of our health services, and they are likely to continue in the same direction. Shifts of responsibility and jurisdiction from one sector to another will occur in the future as they have occurred in the past. This is part of the natural evolution in a field as dynamic as that of health and health services, and so closely tied to social changes also. Government may assume greater responsibility, particularly in the field of financing. Voluntary effort, however, and the independent professions will continue to provide a large share of the actual services and in other respects too; will fill large and important areas of Canada's health needs as in the promotion of research and health education.

¹ Bentham, J., The Rationale of Reward, Book IV, Chapter 3.

All these organizations have accumulated a very considerable store of experience both in regard to the scientific or technical as well as the administrative aspects of their particular activity, albeit limited to that particular activity. Diversity of auspices and organization has the further advantage of keeping a larger segment of the community actively interested in the health field. This, on the other hand, also presents the danger of perpetuating obsolete functions and of promoting self interest of individuals and organizations rather than the achievement of common objectives, isolation rather than regard for the over-all needs and means of meeting them.

The advantages inherent in the existing pattern should not be abandoned and need not be abandoned without a serious attempt to preserve and possibly enhance them. It has become obvious, however, that if left to their own devices the existing agencies will accomplish the needed reorientation towards the common goal at far too slow a rate, if, in fact, they would not tend to pull farther apart working in different directions and retaining, if not increasing, gaps and overlapping. What should be attempted is not complete integration of all existing agencies into one monolithic system of health services, but effective coordination of the multiplicity of organizations to achieve the common objective of providing the best possible health services to all Canadians. It means that the various agencies would retain their identity and their basic nature as either professions, voluntary organizations, or government departments, but the over-all organization, the planning, and the general evaluation would be the result of co-operative effort. A coordinated organization of health services has become essential not only for reasons of efficiency and effectiveness, but also to ensure the continuity of care throughout its various stages. In health maintenance as well as in the management of chronic illness and disability, which represent today's main health problems, continuity is of the utmost importance in both physical and mental health and illness. It can be achieved only by an organization coordinating the various stages of service.

To aim at an organization achieved by the cooperation of a variety of agencies rather than by forced integration is by no means unrealistic. Some of the newly emerging trends in health care have been described here in order to illustrate the fact that the beginnings of such cooperative effort already exist. Organized home care plans and coordinated rehabilitation services function well with the participating agencies retaining their full identity. Medical group clinics successfully achieve teamwork among members of probably one of the most individualistic professions. Regionalization of hospitals is gradually being accepted by hospital boards. Voluntary health organizations have been coordinating their efforts to an increasing extent.

If all these have so far remained sporadic efforts, they illustrate the recognized need as well as the readiness of the agencies concerned for greater co-operation and coordination. There is no reason to believe that the same approach would not work on the more systematic scale which now has become imperative. It must work if we are to retain the present basic structure and yet have effective health

services. If the principle is implemented at the community, regional, provincial, and national level then there will be a safeguard that general policies will be adapted to local needs and conditions. Such a system of organized and cooperative operation of health services must distinguish between two phases: 1. the planning, and 2. the implementation of the plan. There will be two types of agencies needed, somewhat similar to the division of responsibility between parliament and the executive branch of government. There is a distinction between "community planning for health services" on the one hand, and "planning for community health services" on the other.

V.A. Getting identifies three distinct phases of organized community health services, namely planning, implementation, and evaluation. The first two correspond to the above-mentioned stages of policy-forming and implementing. These must be supported by corresponding research activities at all levels in order to assist in the planning and in the evaluation of the health service system and its components. Research into the various aspects of health services is also likely to yield important data for medical research as such, thus calling for the kind of institute of health studies proposed in the study on medical education in Canada. Such an institute would integrate the operational research and health services studies with the requirements of medical research.

The nature, composition, and function of the coordinating machinery required at the various levels of administration is discussed in greater detail and more specifically elsewhere in the Report of the Royal Commission on Health Services. This study will concentrate on the question of how best to ensure that at the local level all available and needed services are readily available to the patient through his doctor. It will be limited to the organizational aspects only, the question of financing being dealt with elsewhere.

In reviewing the situation and before drawing any conclusions it may be best to set aside for a moment administrative considerations of a neat and tidy organizational pattern and instead look at the practical problem faced by a patient and his attending physician.

Let us consider the situation first from the point of view of the patient. Assuming that he is sufficiently health-educated to either seek care at the slightest symptom or not to be afraid the doctor might find something if he has more serious complaints, he will probably end up by seeing a doctor or some other health practitioner. If he has trouble seeing should he go to see the optometrist,

¹ Josie, G.H., in panel discussion on 'Planning, Implementation and Evaluation of Community Health Services', Canadian Journal of Public Health, December 1964, p. 524.

² Getting, V.A., "Planning, Implementation and Evaluation of Community Health Services", Canadian Journal of Public Health, December 1964, pp. 513-521.

³ MacFarlane, J.A., et al., op. cit., pp. 280-285.

A Royal Commission on Health Services, Vol. II, Ottawa: Queen's Printer, 1965, Chapter 7, pp. 199-236.

his family doctor, or a specialist? If it is his hearing, should he buy a hearing aid or, again, see a doctor first? If he decides to see a doctor, it is no longer a matter of going to the one doctor in the community: it may be one of several general practitioners or, with some self-diagnosis, a specialist may seem more appropriate. Should the children be taken to a paediatrician, mother go to a gynaecologist, and father to an internist? If the matter seems to be more serious or urgent, does one go to the "emergency" at the hospital or try first to get in touch with a doctor? There are thus a number of alternatives but things are comparatively simple for the patient: he will probably end up by consulting a physician who will then decide what further action may be required in the case.

The physician on his part may have some difficulty if he finds that other services are needed in the case. Anxious to provide care of high quality, he will want to make use of all available services that can be usefully applied. This may mean X-ray examinations, laboratory tests, a course of physiotherapy or other treatment; it may also mean admission to a hospital or referral to a specialist. Admission to the hospital has the advantage of ready availability of all the special services that may be needed, and it also makes it easier for the doctor to see his patients on the daily hospital round. Yet, there may be a possible alternative to hospitalization. Some of the services may be available from private X-ray or clinical laboratories; there may be a dozen or more voluntary agencies in the community offering certain specialized services, and the patient may prefer to stay out of the hospital, if possible. But if so, he would perhaps need some kind of housekeeping services in addition to a visiting nurse looking after the day-to-day care.

Can the busy physician be expected, first of all, to know of all these services, can he be assured of their quality, and can he find the time to make arrangements with several service agencies if his patient needs several services? If he does manage to refer the patient, would he have the time to follow up the case with several agencies and perhaps get involved in the billing and paying for these services?

As things are, one sympathizes with the physician if he either sends the patient to the hospital because it is the simplest way out or, if the patient stays at home, no attempt is made to secure some of the other services although they would be helpful in the case. It would perhaps be too much for the doctor to get involved with a visiting nursing agency or physiotherapy service, not to speak of the patient's housekeeping problems which may require a homemaker service, meals-on-wheels, or other domestic help.

Seen from the point of view of one of the voluntary agencies in the community, the situation is also difficult. For example, an agency for the care of handicapped children and providing physiotherapy services would have to plan its operation with little or no guidance as to the extent of the problem, as to similar or related services available, and as to the amount of funds it can expect from donations,

community chests, or government grants. It, in turn, may have to make arrangements with other organizations for ancillary services such as the provision and financing of appliances, equipment, or transportation of patients.

The existing fragmentation and compartmentalization of health services in the community proves particularly unsatisfactory where continuing care over a prolonged period of time is essential, such as in the care of the elderly patient, the chronically ill generally, and those in need of rehabilitation services, surveillance, and follow up. The findings of a recent survey in the Halifax area of Nova Scotia are typical and apply equally to the situation in other parts of Canada. A thorough inquiry was carried out there into the functioning of long-term care facilities in the area and some of the findings are most pertinent to the subject of this study. Here are some of the conclusions:

"The region lacks a coordinated, community wide approach to the needs of the long term patient which include comprehensive care, continuity of care and appropriate location.

"The long term care facilities in this region were operated independently by many separate agencies, governmental, voluntary religious and proprietary; and these various agencies did not participate in any organization or group to plan and coordinate such facilities for the region."

The one exception in the area was found to be the hospital operated by the Department of Veterans Affairs where the geriatric facility was "closely related functionally, physically and administratively with the general part of that hospital and all the services of the general hospital were available to the residents and patients of the Geriatric Section". As a result, the report states, patients could transfer with ease from one section to another, accompanied by their records. But this was found to be the exception: "there is no similar comprehensive care facility for the non-veteran population in this region". Consequently, "though the other long-term care facilities, each providing care for selected phases of long-term illness, were functionally related with each other and with the general hospitals in the area, there was a notable deficiency of formal affiliations and administrative coordination."

In his report on the survey, Gordon describes the consequences of the lack in what he terms "balanced community resources for patient care":

"The categorical development of an intricate complex of various types of institutions, programs and services, each conceived and designed by separate agencies, both governmental and voluntary and each with its own concept as to need, has not usually been associated with cooperation, coordination and long term, over-all, community planning. One result of this uncoordinated approach to the problems and needs of illness and infirmity has been that patient care has suffered due to the lack of certain facilities and to improvisation and overcrowding in existing facilities.

¹ Gordon, P.C., Long Term Care Facilities in the Atlantic Health Region, Halifax: The Welfare Council (Halifax-Dartmouth Area) 1964, p. 18.

² Ibid.

³ Ibid., p. 19.

⁴ Ibid.

"With an unbalanced complex of facilities any community will inevitably find its existing facilities, no matter how carefully designed and staffed, will be caring for people who should be elsewhere. Due to the lack of an important facility, service or program patients 'back up' into other facilities. We have seen this occur in general hospitals, where, due to the lack of community ancillary services, long term care patients tend to accumulate on the acute care wards.

"In addition to gaps and duplication in services and facilities resulting from uncoordinated planning, "functional" gaps also occur. Even where one finds all the elements required for progressive and comprehensive care, without a coordinated plan for the proper use of these facilities, we still find patients cared for in inappropriate facilities."

The report thus sums up, and illustrates from the example in an actual community setting, the general observations made in the present study regarding the short-comings resulting from the lack of coordination in our community health services. Among the resulting recommendations for improved long-term care is the following:

"There is urgent need for community-wide planning to develop essential physical facilities and to ensure orderly and systematic cooperation between various agencies."

And yet, the Halifax study concentrated on one part of the problem only, i.e., the long-term care facilities, referring only incidentally to patients in acute treatment general hospitals and those cared for at home. These cases encounter the same problems as those described in the study. While the problem is particularly pressing for long-term and continued care, it applies also to patients with acute illness or injury who need several services besides those of their attending physician.

Among noteworthy specific observations contained in the Halifax report is that of the need for some formal affiliation and association. Informal consultation on a personal basis is useful, of course, but depends too much on the individuals concerned. It is also more likely that consensus will be achieved, and matters be viewed more objectively, if there is a statutory provision for coordination so that all sides to a case will be heard. This would bring about a consensus regarding the various needs rather than each agency acting on its own concepts of what the needs are.

The continuity of records and their availability to all agencies involved in a case is an important feature to be incorporated in any arrangement for coordination of services and ready referral from one agency to another.

As long as the formal coordination of all health services in the community is lacking, we cannot expect (a) effective use to be made of all available services, (b) services to be well planned without gaps on the one hand or overlapping on the other, (c) patients and doctors to be aware of the availability of the various services, (d) the different agencies to be properly financed, (e) planning to proceed

¹ *Ibid.*, pp. 167 and 168.

² *Ibid.*, p. 181.

in an orderly and efficient fashion with adequate evaluation of the individual services and the whole organization, (f) high quality of the services to be assured.

The need then is for some machinery to effectively coordinate the operation of all health services in the community, including the hospital and the public health agency, and to provide for planning and evaluation to proceed with due regard to all required services.

There exist already several models for bringing about the necessary coordination, as pointed out in the previous chapters. The medical group clinic is a device of bringing together the several fields of medical practice. The hospital supplies under one administration just about all conceivable health services. Organized home care provides a similar organization for the health services outside the hospital and usually coordinates them effectively with the hospital. The Vocational Rehabilitation of Disabled Persons Act has provided a framework for the coordination of all services, health and otherwise, which may be required to fully medically and socially rehabilitate a patient. In some cases the local health department or health unit has been instrumental in achieving cooperation among various health agencies in the community.

All these various forms of coordination, to the extent that they do exist, have developed organically from existing institutions. There is no need, therefore, to invent new forms and superimpose them on the existing structure: what is needed, however, is the systematic application of coordinating devices which already have proven their worth in various situations. An altogether different problem exists in regard to health services in the outlying and sparsely populated areas, particularly in Canada's northland. This problem will be discussed in the last chapter.

Which of the above-mentioned models should then be adopted as the coordinating community agency? Roemer observes that "each of these three groups—medical society, public health agency, general hospital—makes claim to be the logical center around which all health services in the community should be structured"; and he concludes that the answer in respect to American communities has not yet been found. Searching for an answer for Canadian communities one will likely conclude that there need not be, and perhaps should not be, a rigid uniform pattern. In view of the wide variation from province to province and even within the provinces, in the basic structure of health services as well as other community services, the envisaged coordinating agency should be flexible in nature and adaptable to local needs, resources, and institutions. These may well determine the location of the coordinating centre in either a hospital, health unit, clinic, or a separate office altogether. What is essential, however, is that the management of the organization be clearly divorced from any individual service or agency. The administrator, of

Roemer, M.I., "Changing Patterns of Health Service: Their Dependence on a Changing World", Annals of the American Academy of Political and Social Science, March 1963, p. 55.

² Ibid., pp. 55 and 56.

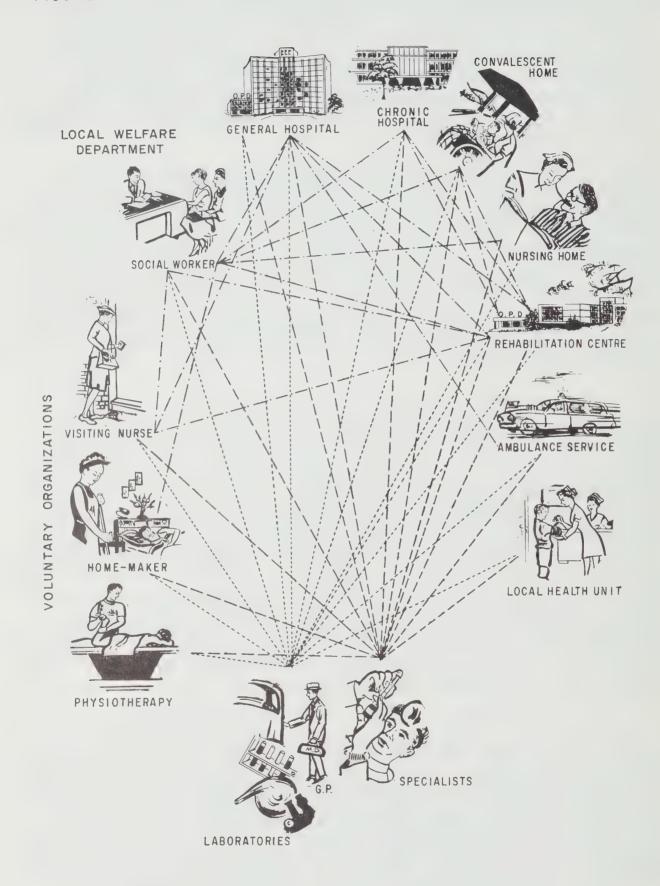
whom more will be said later, may well be supplied by one of the existing agencies: the medical association, the visiting nursing service, the health department, hospital, or any other organization. He may, on the other hand, be a qualified administrator without any previous association in the health field. The important thing is that his objective is to arrange for the best possible services to be available to the physician and his patient, and that his loyalty is to the community rather than any particular organization within it. Conceptually he should not be a provider but an organizer of services.

The development of such an organizational structure may be graphically portrayed as in Figures 1 to 3. The charts are based on the assumption that the attending physician is, and will remain, the one responsible for setting other health services in motion and for directing them. Three stages are shown: the first, in a community without any coordinating structure (Figure 1); the second, showing how medical group practice and organized home care tend to simplify and reduce the need for communications (Figure 2); and the third, as the logical extension of the previous stage with the presence of a coordinator of all health services in the community (Figure 3).

In any of our communities with developed health services but without a coordinating agency, the physician's task of obtaining a particular service in a specific case would be part of the bewildering spider web of required communication lines shown in Figure 1. Not all of these lines will be used, of course, in every case, and the doctor sees many patients who do not require any other service. But with the increased resources available to modern medicine and with the growing case load of older patients and the chronically ill and handicapped, the doctor needs access to the various diagnostic, treatment, rehabilitative and even custodial services. With no alternative arrangement, the only practical way to obtain such services will remain the patient's admission to a hospital. The various agencies, in turn, must maintain their own lines of communication, referral, and consultation with other agencies in the community. It would be difficult in this setting to ensure a continuum of care and to obtain complete records of a patient if a number of services is brought to bear on a case.

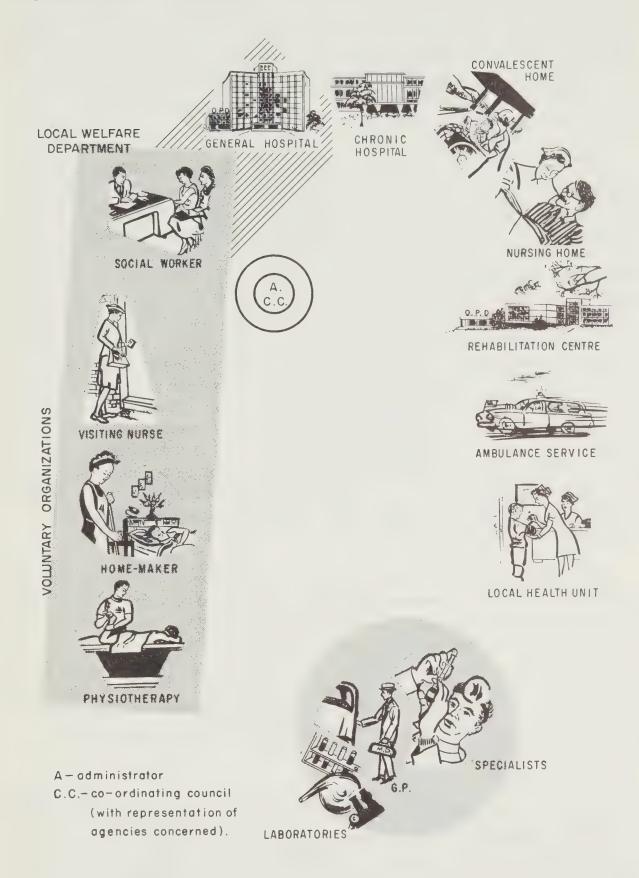
Gradually forms of medical practice develop which greatly facilitate communications of the attending physician with his colleagues for purposes of consultation or referral. Medical group practice is capable not only of providing "one stop" physicians' services, but also certain ancillary services such as those of the X-ray and clinical laboratories. This eliminates some of the communication lines shown in Figure 1. Another development is the organized home care plan capable of providing through one office a number of services similar to the multi-service care otherwise obtainable only in the hospital. The effects of medical group practice and organized home care are indicated in Figure 2 by shading the areas which now form units for which the problem of communication within has been solved. Home care plans are still mostly limited in some respect, either in terms of

FIGURE-1



EACH PHYSICIAN AND EACH AGENCY HAS TO MAINTAIN ITS OWN LINES OF COMMUNICATIONS AND IN EACH CASE ARRANGE FOR THE APPROPRIATE REFERRAL OR REFERRALS.

FIGURE - 2



SOME PATTERNS OF CO-ORDINATION ARE APPARENT. MEDICAL GROUP PRACTICE FACILITATES CONSULTATION AND REFERRAL AMONG PHYSICIANS. HOME CARE PLANS EFFECTIVELY CO-ORDINATE A VARYING RANGE OF COMMUNITY SERVICES, SOME INCLUDING THE HOSPITAL, OTHERS WITH CLOSE CO-OPERATION WITH THE HOSPITAL.

hospital relation, the services they offer, or the number and type of patients they accept. This fact is only inadequately reflected in the chart as some home care plans do include, for instance, ambulance services, have liaison with a rehabilitation centre, or do cover several or all of the hospitals in a community though the plan may be limited in other respects. There are also communities with several organized home care plans which still do not permit the most effective use of the health care resources in the community.

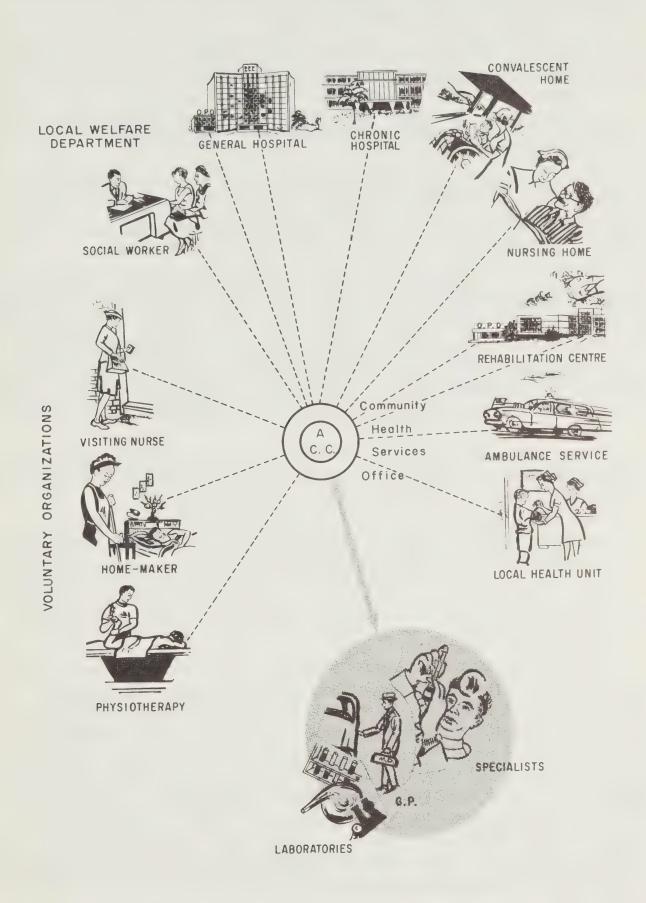
The next step would be to coordinate the coordinators by replacing the partial plans by a community-wide organization covering all health and related services. Conceptually, it would be the same type of organization as already exists in home care plans. The manager or administrator of the Community Health Services Office would be assisted by a coordinating committee with representation from the participating agencies including the hospitals and the official or public health agency. The nature of this committee and the degree of involvement of its members in the community plan will depend on the scope of the community organization. In some cases it will consist only in attending a few meetings during the year, in others it may well require full-time attendance once the scheme is fully operative. All that remains to be done, then, by the attending physician is, where necessary, to admit his patient to the community plan with his instructions, just as the patient is now admitted to a hospital. The resulting network of communications is shown in Figure 3. The local rehabilitation coordinator would be a member of the coordinating committee. He too would have his task facilitated by having ready access in one focal centre to the various health services; beyond that, however, he will still have to establish and maintain liaison with the agencies providing the educational, training, and placement facilities he may require.

The administrator thus would not be a provider of service: this remains the job of the physician and the members of the various service agencies. Nor would he be a policy maker: if there is a comprehensive health care programme, it would determine basic policies, otherwise the policy directives would emanate from the organization sponsoring the community effort. Such an organization may be a creature of the collaborating agencies. Though other agencies will be responsible for policy making, long-range planning, and research, the administrator, by virtue of his knowledge of and familiarity with the problems as they exist, will have important contributions to make in all these areas.

It is clear that this type of community organization will not in itself eliminate all possible sources of conflict among the participating agencies but, like other democratic institutions, it will provide a forum for the exchange of views, plans, and experiences, and by doing so it will facilitate a more objective appraisal of situations and make possible a common approach to common problems.

The physician, the hospital, and all the other agencies will require only one main line of communication, namely with the community health services administrator whose office would establish any other necessary liaison. In describing the

FIGURE - 3



THIS IS THE LOGICAL EXTENSION OF THE PREVIOUS STAGE. THE ONLY ADDED FEATURE IS THAT THE HOME CARE ADMINISTRATION IS BROADENED SO AS REPRESENT ALL COMMUNITY SERVICES AND AGENCIES, THUS REQUIRING ONLY ONE CHANNEL OF COMMUNICATIONS FOR THE PHYSICIAN NO MATTER HOW MANY SERVICES MAY BE REQUIRED.

health care needs of the aged, the Canadian Medical Association outlined the kind of organization it had in mind, as follows:

"The leadership and responsibility for planning programs for the aged should emanate from the community through meetings of all interested agencies including the medical profession. A central committee representing various interested groups is possibly the best method of establishing community programs.

"The provincial government should be represented on these committees as it is in a position to stimulate action for the development of facilities and to provide financial assistance where necessary."

For the physician such a community programme would have the advantage of facilitating the use of a much wider range of services than he could or would use if he himself had to set them into motion and keep them operating. Central records would be maintained and be available to all concerned with a case.

The role of the public health agency within the coordinating committee would relate to the personal health services it provides, such as immunizations and well-baby clinics; but it would also be able to bring to the committee an appreciation of the broader health problems of the community. It would contribute the much needed emphasis on preventive health care and health education. The community health service organization may, in fact, provide an ideal proving ground for health maintenance programmes, a type of programme of which far too little is known.

Flexibility must remain the watchword in setting up community organizations of the type described, particularly in the early stages. The United States Public Health Service comments on this subject as follows:

"Health planning and coordination on a community wide basis is a new activity, with unique features in each locality where it is undertaken. Many localities have no group or agency having this responsibility. In some communities the machinery originally created to plan and coordinate physical facilities may evolve into leadership for the idea of comprehensive health services. Wherever this evolutionary process occurs, it will constitute a kind of crucial experiment, which should be studied and documented."

Flexibility must also be applied when it comes to delineating the level and extent of the community whose services are to be coordinated. The trend towards consolidating certain services for several smaller communities and towards regional planning will have to be taken into consideration. The community thus may be a single municipality, a health unit area, a school district, or perhaps only part of a metropolitan area. Its boundaries will depend on factors like the distribution of health facilities and personnel, the distribution of the population, transportation and communications. The area must be small enough, however, to serve its main purpose, i.e., to make all existing facilities and services readily available to the people who need it, both patients and physicians. It is one of the great advantages of Canada's diversity that it provides opportunity for the study

¹ Canadian Medical Association, Health and Institutional Care Aspects of Aging, submission to the Select Committee of the Senate on Aging, Ottawa: November 5, 1964, p. 3.

² United States Public Health Service, Research in Community Health, Washington: U.S. Department of Health, Education and Welfare, 1964, p. 18.

and appraisal of different approaches to similar basic problems. Yet the creation of community organizations is an urgent task and should be undertaken without delay. Bodies representing and coordinating the professions, private and public agencies have become essential if these agencies are to be preserved and if they are to achieve their objectives. Lip service has been paid long enough to the need for teamwork in health care but now it must be made to work:

"It is neither easy nor cheap to develop and maintain effective team functioning in the public health setting. It requires 'want to' as well as 'know how' among team members. It takes time and good will."

But this is the price to be paid for maintaining any democratic institution.

The proposed community organization in itself will in no way alter the existing distribution of functions and responsibilities among the professions, voluntary organizations, and governments. Nor should it serve to necessarily maintain the status quo. Any changes in the present role of the respective agencies will in the future, as they have in the past, come about as the result of the continuous evolution in our health services and social institutions. The only difference will be that the haphazard, sometimes insufficient and sometimes wasteful development of the past will be replaced by a careful assessment of current and future needs, and an objective assessment of past performance.

ADMINISTRATION, ADMINISTRATORS, AND THE MEDICAL PROFESSION

Considerable emphasis has been placed, by those concerned with the provision of health services, on the need for an adequate supply of providers of service; yet not enough attention has so far been paid to the growing demand for qualified organizers of these services.

Which agency should administer an organization of community health services, and who should be the chief administrator?

Various answers have been suggested. Among them is that which proposes the hospital, because in many respects it already represents the centre of physical health care facilities in the community. Others submit that the publicly administered public health agency would be the logical organization, and the medical officer of health the logical person to administer the organization of community health services. All of these suggestions have some merit but they also have the drawback that the respective agencies or persons are not automatically the best suited or best qualified for the task. One also has to distinguish between the location of the new organization and its actual operation: the office of the community organization may well be located in a hospital without necessarily being run by the hospital.

¹ Hastings, J.E.F., "Rehabilitation and the Public Health", Canadian Journal of Public Health, July 1962, p. 283.

² Freeman, R.B., "Teamwork in Public Health", Canadian Journal of Public Health, September 1964, p. 385.

In larger centres, the question would arise which of the several hospitals would administer a community-wide organization. Similar considerations apply to health units as administrative agents of the community programme. They also may, for some, have the limitation of being part of government. The answer to this part of the question — which should be the administering agency — will probably be found in the observation made at the beginning of this chapter where it is pointed out that multiplicity of auspices has certain advantages over a monolithic structure, one of these advantages being that a variety in the organization lends itself better to adaptation to local and regional needs and conditions. Depending on these circumstances, it may very well be either one of the existing agencies or a newly created organization which would be best suited to administer the coordinated community programme.

The same considerations apply to the question who should be the person to administer the programme? The answer again is: the one best qualified by training and suitability. It is often argued that the administrator should be the medical officer or at least a qualified physician. But here again it is not true that a qualified medical officer or other physician automatically makes the best administrator. Medical knowledge certainly does not disqualify a person from becoming an administrator. On the contrary, here as in any other field of administration, subject matter knowledge is a great asset and some such knowledge is most desirable if not necessary for the health services administrator for two purposes: first, to enable him to understand the objectives of his agency and to plan and evaluate its operation, and second to enable him to discuss administrative matters intelligently with health professionals and to talk and understand their language. There is no reason why a good doctor should not be able to become a good administrator, just as a good administrator may become a good doctor—given the proper training.

It must be remembered that in this age of growing complexity of organization, be it in industry or public administration, it is hardly possible any longer to acquire the knowledge needed merely be apprenticeship and by working in the organization. To the extent that it can be done at all, it would require a good many years of practical experience to obtain the same standard that is achieved by formal academic study. This is true of the hospital administrator, who needs formal training for his work, and it is also true for the newly emerging discipline of the health service administrator. Part of the reason for this is the already mentioned complexity of modern management, be it in business or community organization, but very largely it is also the growing involvement in large scale financial operations as hospitals and other health services develop into very costly operations where proper accounting to the public is essential. His medical training does not prepare the physician for this task:

"He then realizes that while a satisfactory bedside manner is one thing, an acceptable public manner is another. Sooner or later he awakens to the fact that the pro-

^{1 &}quot;Certainly, a health department should be interested in having some definite function at the provincial level. But at the local level responsibility of that kind can jeopardize liaisons already established with colleagues in private practice." (Benson, K.I.G., "More Effective Liaison Between Community Health Services", Canadian Journal of Public Health, February 1964, pp. 58 and 59).

gram and the personnel he is directing involve the expenditure of money. Where does it come from? How to go about obtaining it?",1

Medical manpower statistics give no clear picture of the trend of the involvement of physicians in health administration. In 1943, there were 292 physicians engaged in public health, compared with 443 in 1962. The percentage of doctors engaged in public health, however, was only slightly higher in 1962 (3.9 per cent) than in 1943 (3.4 per cent). The 1943 Survey, moreover, showed an additional 2 per cent engaged in other government service, a category for which there is no counterpart in 1962,3 The number of doctors in industrial medicine has actually decreased from 135 in 1943, to 121 in 1962.4 If it is estimated that 20 to 25 per cent of all active physicians in Canada are mainly remunerated by salary, 5 it must be remembered that salaried work is not synonymous with administration; it includes also research, teaching, certain hospital posts, as well as those in private practice but in a group which remunerates its members in ways other than fee-for-service. There is no indication that the proportion of physicians seeking administrative jobs is increasing, nor would one expect medical graduates to be particularly interested in administration6 unless they had a special flair for it and received some training in this field. Indications are that physicians are rather anxious to divest themselves of administrative duties in situations such as those in group practice and in the hospital. Hanlon remarks that "in a more specific sense, the neophyte in public health administration, when he first opens the door providing entry to the organization for which he is to provide leadership, finds himself face to face with a series of problems of quite unexpected types and for which he usually has been unprepared."7 In analysing what he calls the occupational dilemma of the physicianadministrator, Hall refers to the "strains inherent in the career of the salaried physician".8 He distinguishes the basic nature of medical practice and bureaucracy:

"The bureaucracy is a social invention, one capable of accomplishing very complicated tasks. It is by nature a complex structure, and indeed requires a distinctive and highly specialized type of official to operate it successfully. The doctor, therefore, who embarks on a career therein is likely to find himself an amateur in a structure peopled by 'professionals' among whom, ironically, he is a layman."

There is nothing in the curriculum of the medical school that would sufficiently familiarize the doctor with the complex structure of health care administration to enable him to successfully deal with the administrative aspects of the organization. One has to think only of the main managerial tasks such as the budgetary process

Hanlon, J.J., Principles of Public Health Administration, third edition; St. Louis: C.V. Mosby Co., 1960, p. 10.

² Judek, S., op. cit., pp. 140 and 141.

³ Ibid.

⁴ Ibid.

⁵ Ibid., p. 218.

⁶ Public health is not necessarily purely administrative.

⁷ Hanlon, J.J., op. cit., p. 10.

⁸ Hall, O., "Half Medical Man, Half Administrator: An Occupational Dilemma", Canadian Public Administration, December 1959, p. 185.

⁹ *Ibid.*, p. 186.

(both budget formulation and execution) and personnel management, to which in the case of organized community health services must be added the working relationship with the many and varied agencies involved. To cope with these administrative tasks, a health professional - be it a physician or a nurse-requires special training unless the hospital or organization in question is of very small size. In regard to the physician, Hall finds that "the characteristic traditional training of the medical man does not prepare him to follow a career in a bureaucratic organization; if it gives him any orientation toward the work world it does so along the line of the independent practitioner and the independent entrepreneur".2 When Taylor refers to the substantial involvement of the medical profession in public administration3 (and the same applies also to the administration of private and semi-public health plans), he has in mind not so much the function of the individual physician as administrator, as the role of the organized profession in shaping or guiding administrative policy which is done either through the professional organization or through committees composed of, or with representation of physicians. In the United States, the claim of the medical profession that it can determine or substantially influence administrative policy has been described as one of the great fallacies of contemporary medicine: "In some way the concept of human health, the factors that underlie it, and the great potentials in the co-operative process for securing it must be freed from the distortions and restrictions imposed by conventional medical education so that in time there can be dispelled from the physicians of the nation the widely pervasive Napoleonic complex that only the physician can fully comprehend the total needs of our society and, therefore, that all public policy on matters dealing with human health must have his blessing or be damned." The very fact, however, that this was said by a member of the profession is an indication of the gradual acceptance by the profession of the idea that the advances in the social sciences also have something to contribute to evolving concepts in medicine and particularly to the planning and evaluation of health services. This acceptance has so far been restricted largely to general pronouncements on the part of medical schools and the profession, with the more specific contributions and proposals coming mostly from the side of the social scientists who are interested in health matters. Nevertheless, the fact that these people are accorded a sympathetic hearing in medical journals, medical schools and health sciences centres, as well as sometimes in the councils of the profession itself, is evidence of the emerging role of the social sciences in the social aspects of medicine and organization of health services.

Even if not in the role of an administrator, physicians do make numerous and important administrative decisions. Examples are the certification of fitness or otherwise for certain jobs, certification of the patient for insurance purposes, assessment

¹ See Administration of Community Health Services, ed. E.A. Confrey, Chicago: The International City Managers' Association 1961, Chapters 3 and 4.

² Hall, O., op. cit., p. 186.

³ Taylor, M.G., "The Role of the Medical Profession in the Formulation and Execution of Public Policy", Canadian Journal of Economics and Political Science, February 1960, pp. 108-127.

⁴ Crabtree, J.A., "Plans for Tomorrow's Needs in Local Public Health Administration", American Journal of Public Health, August 1963, p. 1177.

of disability, or the admission to and discharge from hospital. Especially in regard to hospitalization, the decision is not and should not always be based on purely medical grounds alone, and the physician will have to weigh his own preference and the interest of the patient against the policy of the hospital and the insurance scheme. In practice, it will often be difficult to distinguish between medical and social indication for hospitalization. If the patient's social condition is such that the hospital provides an environment better suited for his recovery, then a longer stay may be indicated on medical grounds. In any case it is true that these administrative decisions are made by the physician:

"...the 'need' for hospital services is a decision which the patient-consumer must delegate to his physician. And the physician, in turn, must make the decision to hospitalize his patient on medical rather than economic grounds.

"But when a physician does decide that his patient's medical problem requires the services of a hospital, he is thinking in terms of facilities and trained personnel and their effectiveness in helping him treat his patient. He is not thinking in terms of 'so many dollars worth of hospital care'. In 1962, for example, physicians decided that the effective treatment of their patients required 26,531,000 hospital admissions. These same physicians made the medical decision to keep their patients in hospitals an average of 7.6 days. Faced with this 'demand', the suppliers spent \$10 billion to provide the required hospital services. Thus, the 'quality' of hospital services consumed in 1962 was determined by physicians; prices were established by hospital managements; and consumers paid the bill (directly, through insurance mechanisms, or via taxation).

"The physician, then, plays a key role in determining the effective demand for hospital services." 2

Making these decisions, however, is different from administering a hospital. This administration involves the planning and operation of the facilities and services required to carry out the physicians' decisions. The attending physician personally has nothing to do with the budgeting, personnel problems, accounting, and all the other administrative aspects of hospitalization. There are, however, some physicians who hold positions as hospital administrators. In 1963, there were 81 hospital administrators with medical degrees in Canada — less than one-tenth of all hospital administrators — and only 19 of them had at least some formal training in hospital administration. The latter percentage may seem small but it should be remembered that in the same year only 39 per cent of all hospital administrators had some formal training in hospital administration. But this percentage is higher than it has been in previous years and the trend appears to be toward an increasing proportion of administrators bringing at least some formal training to their job. Table 6 illustrates this for the last three years for which comparable data are available:

¹ This and the following figures in the quotation apply to the United States.

² Report of the Commission on the Cost of Medical Care, Volume I, General Report, Chicago: The American Medical Association 1964, p. 19.

³ According to unpublished information kindly made available by the Dominion Bureau of Statistics.

QUALIFICATIONS OF HOSPITAL ADMINISTRATORS,
GENERAL AND ALLIED HOSPITALS, CANADA 1961-1963
(percentage distribution)

Year	Tota1	With University Degree or Diploma in Hospital Admin- istration, or with Extension Course in Hospital Administration	No Formal Educa- tion in Hospital Administration	With University Degree or Diploma in Hospita1 Administration
	%	%	%	%
1961 ¹	100	32	68	16
1962 ²	100	33	67	19
1963 ³	100	39	61	21

¹ Dominion Bureau of Statistics, Hospital Statistics 1961, Vol. III, Ottawa: Queen's Printer, 1964, p. 58.

A greater proportion of hospital administrators now have some formal training. While in 1961, one in six administrators had a university degree or diploma in hospital administration, only two years later one in five was so qualified. Among this latter group, there has been a number of men with a medical degree: in 1961, there were 11 medical graduates among a total of 137; and in 1963, 18 medical graduates out of 193 administrators with a university degree or diploma in hospital administration. This proportion of less than one in ten would seem to confirm that the post of hospital administrator does not particularly attract physicians but, on the other hand, that some of those who are interested in this kind of work see the advantage of formal university training. One study carried out among the faculty members of a medical school and staff of the affiliated teaching hospital in the United States found that the attitudes of physicians towards administrative tasks varied:

"Physicians openly viewed administration as a relatively non-professional and unappealing type of activity in comparison with patient care, teaching, or research. Yet the pattern of combining these activities with administrative duties was found to be institutionalized for full-time salaried staff physicians; most of these men reported spending at least some time on administration. That such men are not entirely unwilling victims of the organizational obligations entailed in their choice of academic medicine as a career was suggested by the greater personal interest in administration they expressed as compared with the part-time staff, whose primary career commitment was to private practice. Variations in amount of personal interest in administration according to academic rank within the full-time staff also suggested that personal interest may help account for willingness to spend time on administrative duties

² Dominion Bureau of Statistics, *Hospital Statistics 1962*, *Vol. III*, Ottawa: Queen's Printer, 1964, pp. 82 and 83.

³ Dominion Bureau of Statistics, Hospital Statistics 1963, Vol. III, Ottawa: Queen's Printer, 1966.

¹ In 1963, there was only one medical graduate administrator who had taken an extension course in hospital administration (source as for Table 6).

only so long as these duties do not greatly interfere with other, more professional types of work."

The aversion to administrative involvement is by no means confined to physicians. Professionals in other fields, too, are frequently reluctant to subordinate their subject interest to administrative responsibilities. It is an often heard complaint by professionals in the civil service and other large organizations that in order to get ahead they have to assume administrative duties to the detriment of their original professional activity which still remains their first concern. This is not to say that there are not some scientists and other professionals who do like administrative functions and indeed make a very good job of it.

While many of the present hospital administrators, in fact the majority, acquired their administrative knowledge and ability through on-the-job training, the trend is towards formal education. Although these administrators "have been surprisingly successful under the circumstances, most of the men and women thus arbitrarily recruited for administrative responsibility in the health services are strong advocates of professional training for their successors."

The need for formal training has been recognized for some time in industrial management and public administration. There is a sufficiently large body of scientific knowledge available now so that the required qualifications can be more speedily acquired by formal rather than on-the-job training, and also that mastery of this knowledge in the social and economic sciences can hardly be achieved entirely by experience.

In the hospital field, this became recognized when the hospital developed into the complex and costly institution it now is, and when public concern with sound administration grew. This concern has been extending gradually to other health service institutions such as the prepayment plans administering medical services. It will apply still more where several types of services are being coordinated or integrated. The hospital administrator is the forerunner of the just emerging general health service administrator. MacFarlane and his study group comment on the dual role of the administrator in the health field as a business manager and health professional:

"... hospital administrators have become concerned more with the financial aspects of hospitals than with their role in the treatment of patients. This trend has been accentuated by the philosophy of certain American Schools of hospital administration, which emphasize that their prime role is to administer the hospital as a sound business enterprise. While this is an important function of hospital administration, it

¹ Goss, M.E.N., "Administration and the Physician", American Journal of Public Health, February 1962, p. 190.

² State of New York, Committee on Medical Education, A comprehensive Plan for Comprehensive Care, Education for the Health Professions: New York's Needs in an Age of Change, a report to the Governor and the Board of Regents, June 1963, p. 69.

is imperative that the very special role of the hospital in providing care to sick patients is not lost."

These two aspects of health administration can be reconciled in the curricula of courses designed to train physicians in administration — such as the courses provided in the schools of hygiene and public health — and in the courses designed to train health administrators as such. To quote MacFarlane and his group again, this can be accomplished by requiring:

""... close contact between the trainees in hospital administration and other students in the health field, in order to correct the conflicting philosophies which tend to separate the physicians and administrators. If the Health Sciences Centre concept is accepted across Canada, it should include courses in hospital administration."²

The conflict, however, is probably not so much one between the basic philosophy of physician and administrator than in the emphasis. The primary objective of the administrator must remain facilitating good, and not necessarily the cheapest possible health care. But within the objective of good care, efficiency remains the goal of good administration, and this is the very reason for training and employing qualified administrators. It is easy to understand why the problem of administration should first have received prominence in the hospital setting rather than among the various other types of health services. The managerial, budgetary, personnel and related problems in the day-to-day operation of the large modern hospital resemble in many respects those found in business, industry and public administration. While the emphasis in most of the academic curricula in health administration is on the hospital, these courses also intend to cater to the demand in government agencies, community agencies, research organizations, and other institutions. This statement in regard to the Ph.D. course in hospital and health administration at the State University of Iowa³ is true generally.⁴ An analysis of positions held by alumni of graduate programmes in hospital administration in 16 North American universities, including the University of Toronto, in 1961, shows that about 30 per cent held positions other than in hospital administration.5

Future programmes for the education and training of health service administrators will have to take the broader needs increasingly into account but in some cases the needs are still not sufficiently defined as those arising out of newly emerging organizational patterns such as organized home care and rehabilitation services.

¹ MacFarlane, J.A., et al., Medical Education in Canada, a study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer 1965, p. 303.

² Ibid.

³ Hartman, G., and Levey, S., "Doctoral Study in an Emerging Profession: Hospital Administration", Journal of Medical Education, April 1962, p. 303.

⁴ Roemer, M.I., Medical Care Administration: Content, Positions, and Training in the United States, Western Branch, American Public Health Association and U.C.L.A. School of Public Health, 1963, p. 112.

⁵ Based on Hartman, G., et al., "The Graduate Programs and Their Alumni", Hospitals, February 16, 1962, p. 54.

In other areas the pattern of organization may be well defined, but the need for qualified administrators just emerging or being recognized. This applies, for instance, to the management of medical group clinics, medical care prepayment or insurance plans, voluntary health service agencies, and organizational patterns which gradually have been assuming their own identity. Further study is needed to establish the required qualifications for administrators in these various situations and to determine the curriculum content best suited for this purpose. The need for such study was emphasized recently by a study group convened by the World Health Organization. This group placed the emphasis on the training of medical graduates as senior administrators but "while medical graduates have constituted the predominant professional category here, other health administrators, both with and without prior qualifications in one of the health professions, are also important".

It is obvious that the degree of sophistication required of the administrator will vary considerably with his level of responsibility and the scope of the organization he administers. Certain phases of a limited programme can quite adequately be managed by one of the health professionals involved, whereas the administration of community-wide, regional, or national programmes will definitely require systematic training, culminating in a doctorate for the more complex jobs.

The multiplicity of situations in which the health services administrator has to function may well require some degree of specialization in addition to a certain basic body of knowledge. The manager of a group clinic, the administrator of a large hospital, and the director of a prepayment or insurance plan will all need the same basic outlook but its practical application will require different techniques and familiarity with different technical problems.

Roemer thus describes the over-all field of health service administration as follows:

"This over-all field is not simply a subdivision of clinical medicine nor of business administration, though it calls for some knowledge in both of these spheres. It deals with the group aspects of health service..... It includes activities in the administration of preventive health services and of curative services; within the latter it includes functions in the operation of institutions (general and special hospitals, group clinics, health centres) and also in the provision of general medical care outside institutions.

"Just as clinical medicine has its basic sciences (biology, chemistry, physics, etc.) from which the medical curriculum is built, so also health service administration has its basic sciences. These include medicine, engineering, social science, business administration, and perhaps other traditional disciplines. But the need for trained personnel in the field is so great and so specialized, that special colleges are required."²

Familiarity with the principles and methods of public administration also will be required in the management of existing and future programmes. To illustrate

World Health Organization, Special Courses for National Staff with Higher Administrative Responsibilities in the Health Services, Technical Report Series No. 311. Geneva: The Organization 1965, p. 18.

² Roemer, M.I., op. cit., pp. 131 and 132.

Roemer's point that health service administration is not simply another specialty of clinical medicine nor a branch of business administration, we may look at the content he proposes¹ for the curriculum at the doctoral level following a bachelor's degree:

"The student should acquire a reasonable understanding of the human being in health and disease, and particularly the characteristics and determinants of health and disease in the mass. But he need not learn the minutiae of anatomy, physiology, pharmacology, clinical diagnosis, therapeutics (in surgery, medicine, pediatrics, etc.) so essential for the physician coping with individual organisms. In their place, he should learn in depth about society, about the dynamics of groups, about economic and financial processes, about the techniques of administration. He should acquire skill in the use of tools like statistics and accounting, just as the bedside physician learns the use of the stethoscope. His academic education should be capped with a period of practical training in a health service organization, equivalent to the internship and residency in clinical medicine."

In summary, health service administration involves some training in four broad fields: 1) the biological and medical sciences, 2) the social sciences, 3) the principles and tools of administration, and 4) epidemiology and the social organization of health services. While this statement refers to the doctoral level, some knowledge in these four fields will be required though in lesser depth, at all levels of the academic study in health service administration. Roemer envisages such a systematic course of study beginning with the bachelor's course, followed by the master's and eventually doctor's level:

"And there should, of course, be fluidity within the system, so that lower level personnel with merit could obtain additional training and advance to higher positions."

Because of the rapid developments and changes in the field of medical science, technology, and the organizational patterns of health care, provision for continued education, such as refresher courses, will be as essential for the administrator as it is for the other health professions.

Health service administration is one of the fields where events have outrun our preparedness and planning. That it should only now begin to be recognized as a new and separate discipline is neither surprising nor unique. Medicine itself was practised by a variety of people without formal training or, at best, with some apprenticeship, long before it emerged as an academic profession. The same is true of the dental and nursing profession where formal education is of still more recent origin. New health disciplines are being identified and their educational requirements formalized all the time; examples are optometrists, opticians, the various therapists and technicians, medical record librarians, prosthetists ans orthotists. Among all disciplines there is a continuous striving for higher educational levels and professional status. In regard to health administration, there can be little doubt

¹ For detailed curriculum see Roemer, M.I., op. cit., pp. 135-135B.

² Ibid., p. 133.

³ Ibid., p. 134.

⁴ Roemer, M.I., "Medical Care Administration in the United States: Personnel Needs and Goals", American Journal of Public Health, January 1962, pp. 15 and 16.

that there is a substantial and growing body of knowledge which can be best imparted in a formal curriculum ensuring systematic coverage of all the necessary aspects: "Whether or not all this knowledge is absolutely necessary today is not as important as whether or not it will be needed by the administrator tomorrow." In many instances it is badly needed today not only because of the increasing need for administrators in the expanding traditional forms of organization such as hospitals, but also because of the growing demand in newly emerging institutional types such as insurance plans, group clinics, organized home care plans, and rehabilitation coordination, to name but a few. To devise new organizational patterns for our health services is one thing but "health care plans for the Nineteen Sixties must take provision for the key individuals who will make the organization charts come alive".

¹ Johnson, E.A., 'New Skills will be Needed for Managing Tomorrow's Hospitals', Hospitals, February 16, 1964, p. 69.

² Snoke, A., "Medical Facilities for the 1960's and Their Organization", The Health Care Issues of the 1960's, New York: Group Health Insurance, Inc., 1963, p. 118.



HEALTH SERVICES IN CANADA'S VAST SPARSELY SETTLED AREAS

The foregoing chapters dealt largely with problems arising from the multiplicity of auspices and proliferation of services. These are among the foremost problem areas in planning and organizing the health services for over 99 per cent of Canada's population, i.e., the people living in the settled parts of the country. But providing for these 99 per cent of the population does not solve the problem of health services for Canada. Unlike most other countries, with the exception perhaps of the Soviet Union and Denmark's territories in Greenland, more than three-quarters of Canada lies outside the areas with regular community services. There, the problem is not the organization of a multiplicity of services but the provision of the most basic services. The map in Figure 4 shows the population in relation to the vast empty spaces within the borders of Canada, spaces which are nevertheless part of the country and which contain settlements of vital importance strategically, economically, scientifically, and culturally. All too often it seems to be forgotten that when we speak of health or any other community services, we usually refer only to a relatively very narrow strip along the United States border, whereas most of the area of Canada requires an entirely different approach. It cannot be said that the small proportion of the population in these areas requires proportionally fewer health services. Population-bed or population-personnel ratios developed for the settled and well-established communities have no meaning north of the 60th parallel or even in over half the area within provincial boundaries. The few people scattered over this wide area also have to be provided with health services, not merely because the Royal Commission's terms of reference speak of the best possible health services for all Canadians but primarily because the northland - and the sparsely settled area lies mostly in the north of the provinces and in the Territories - is an integral part of Canada, but will remain so only as long as it is effectively occupied, used, and developed along with the rest of the country.

Canada officially assumed the title and ownership of all British possessions to the north of what was then Canada by Imperial Order in Council of 1880. For

¹ Australia faces a somewhat similar problem but without the severe climatic conditions of Canada's North.

such title and possession to be recognized internationally, however, neither discovery, nor propinquity, nor any unilateral proclamation suffice "to receive international recognition possession demands the acceptance of two responsibilities, continuing interest in the territory, and a concern for the welfare of its inhabitants". There should be no doubt left that both these conditions are met in regard to Canada's North.

The problems of providing health services in these areas grow in complexity the farther we move northward, but to limit the discussion entirely to the Arctic region would mean overlooking the situation in the sparsely and little organized parts of the provinces, and the review of changing patterns of services would omit the advances made by the provinces in bringing better services to these areas. An annual report of the Manitoba Department of Health aptly describes the situation:

"Since the inception of the organization in 1959, Provincial Northern Health Services have been consolidating a long term program — the purpose of which was to develop an integrated health program, combining Public Health with treatment services in the isolated communities located in the sprawling wilderness of northern Manitoba. The medical and health problems of the people in this area were identical with the other inhabitants of Canada's north country, i.e., inadequate medical facilities except in the larger towns, few or no medical practitioners, a handful of Public Health Nurses forever travelling and exhausting themselves against a tide of human sickness and affliction, squalor, apathy and indifference.

"There were no clinics except in the areas covered by Federal Services. Communications were often sparse and complex. Travelling was hard and difficult involving much time and energy. In addition statutory services regarding Environmental Sanitation had to be supplied by two Public Health Inspectors covering an area of approximately 163,000 square miles, including restaurant inspection, milk control, sanitary controls and quality control in northern Manitoba's fishing industry."

Some of these observations apply only to Manitoba but many are true generally. The area discussed in this chapter is, of course, not clearly defined nor is it homogeneous. Newfoundland has developed an extensive transportation system to serve its many outports and isolated settlements. This includes a fleet of cars, some of which are designed for difficult terrain; a floating clinic by which a doctor can visit villages with no road connection; smaller boats, snowmobiles, and charter aircraft. Hospital, medical and health services generally are provided in Northern Newfoundland and Labrador by a voluntary agency, the International Grenfell Association, with financial support by the government. Newfoundland inaugurated an Air Ambulance in 1950.

¹ Jenness, D., Eskimo Administration: II, Canada, Arctic Institute of North America, Technical Paper No. 14, 1964, p. 17.

² Manitoba Department of Health, Annual Report for the Calendar Year 1963, Winnipeg: Queen's Printer 1964, p. 131.

³ Miller, L.A., "The Newfoundland Department of Health", The Federal and Provincial Health Services in Canada, ed. Defries, R.D., Toronto: Canadian Public Health Association, 1962, p. 26.

⁴ Ibid., p. 29.

Saskatchewan has had an Air Ambulance Service since 1946. It carried over a thousand patients in 1960-61. The province's Northern Health District covers an area of 119,000 square miles with services provided by four outpost hospitals and two public health clinics.

Quebec had by 1962 organized the nursing services for its remote areas to provide not only first-aid treatments but also preventive services including immunization.³

In Alberta, the approximately 7 per cent of the population not within reach of the full-time local health units and city health departments are served in the following way:

"Certain areas where the population is sparse and which are situated at considerable distance from medical and hospital services are supplied with a 'municipal nurse'. One nurse is placed in a district serving about 1,200 people and she supplies emergency treatment and a general public health nursing service to her community. Each location has a telephone or a two-way radio communicating through the Alberta Forestry Service. In this way, the nurse is able to obtain medical advice when needed. In some cases, these nursing areas overlap with a health unit, in which case the municipal nurse comes under the supervision of the medical officer of the health unit. In 1960, there were 25 municipal nursing stations..."

The previously mentioned municipal doctor system in the prairie provinces forms the transition between the organized and not fully organized areas, and also the transition between the free market medical care to the south and the government operated combined medical care and public health service to the north.

Government provision of all health services is the rule in most areas of the Yukon and the Northwest Territories. But neither are the Territories themselves homogeneous in regard to their health needs and resources: the Yukon, for instance, is approaching more closely the administrative pattern of the provinces and, as railroads and roads push north into the Northwest Territories, some communities there have begun to develop similarly to their southern counterparts. The Mackenzie District is being settled and becoming accessible faster than the remaining part of the Northwest Territories, where we still may encounter small nomadic population groups as well as permanent settlements. Some of these have a sound ecomomic basis, others have come about just by people gathering from surrounding areas, still waiting to bridge the gap between the traditional life and the new. Because of this variety of conditions and circumstances, observations regarding the health services will not be applicable to all parts of the North.

Roth, F.B., "The Saskatchewan Department of Public Health", The Federal and Provincial Health Services in Canada, ed. Defries, R.D., Toronto: Canadian Public Health Association 1962, p. 108.

² Ibid., p. 6.

³ Province of Quebec, Report of the Department of Health 1962, Quebec: The Department 1963, p. 7.

⁴ McCallum, M.G., "The Alberta Department of Public Health", The Federal and Provincial Health Services in Canada, ed. Defries, R.D., Toronto: Canadian Public Health Association 1962, p. 113.

The main problems, however, are common, if in varying degrees, to the entire area. They are: small populations widely scattered over a large and inaccessible territory, harsh climate, lack of communications and transportation, lagging social and community services, all closely related to problems of the slow economic development in this area.

To grash fully the problems and the challenge of the North, one has to wing over seemin endless hundreds of miles looking down on nothing but barren tundra with no sign whatever of human habitation and no trace of human activity. One wonders, indeed, how man ever found his way into this land and why he remained there. Statistics cannot quite convey the impression of vastness and loneliness but figures of population may serve to illustrate the situation. In 1964, the population density was as follows:

Yukon Northwest Territories Rest of Canada 0.08 people per square mile²
0.02 people per square mile
8.3 people per square mile

Thus, the population density in the Northwest Territories is about one four-hundredth, and that in the Yukon about one one-hundredth of that in the area covered by the provinces. Or, expressed in another way, there are over 50 square miles of area per person in the Northwest Territories, about 13 in the Yukon and only about one-tenth (0.12) of a square mile per person in the rest of Canada; and even this is considered as thinly populated in comparison with other parts of the world.

While cities like Toronto or Vancouver are usually frost-free from early in April or May until October or early November, some parts of the Arctic have no appreciable period free of frost, and others have only a brief period of six or eight weeks.4

These circumstances, together with the absence of the means of ground transportation by road or rail, familiar in the South, clearly indicate that the planning of any community services in the North must be based on considerations essentially different from those that apply in the rest of Canada.

The problem of coordination of many health services under different auspices, which occupies planners elsewhere in Canada, does not exist in the North, at least not nearly to the same extent, since as a rule all services are provided by government. The exceptions are services provided by church missions

¹ Based on population estimates as of October 1, 1964.

² Including land and fresh water area because the latter also has a bearing on distances and communications.

³ Victoria from the end of February until early December.

⁴ Dominion Bureau of Statistics, Canada Year Book 1963-64, Ottawa: Queen's Printer 1964, pp. 53-55.

and isolated mining and industrial establishments which, on the whole, have been effectively integrated into the complex of general health services. Coordination is necessary, however, between the health services and other services if effective use is to be made of scarce and costly resources such as northern transportation and communication.

In determining what are "the best possible" health services is the North, one has to accept the fact that in a country as wide and varied as Canada the nature of services will have to vary between regions, and that prevailing conditions, such as geographic factors, must be taken into account. An agency responsible for the provision of health services in the North must contend with the vicious circle between greater health needs on the one hand and immensely greater difficulties in satisfying them on the other.

The health problems among the northern population groups have been outlined elsewhere in the course of the work of the Royal Commission on Health Services.¹ Suffice here to repeat that among the chief health hazards are those fostered by poor living conditions aggravated by the harsh climate. These conditions are reflected in high mortality rates, particularly infant mortality, and diseases such as pneumonia, tuberculosis, and also accidents. Improvements over recent years are evident due to the better services brought to these areas by the Northern Health Service of the Department of National Health and Welfare as well as by the provincial health departments. However, the wide discrepancy still existing between rates in the northern Territories and the rest of Canada indicates that the health problems cannot be solved without simultaneous amelioration of general living conditions.

But the health problems created or aggravated by poor living standards are not the only ones peculiar to the North. There are, in addition, the problems arising out of the need for adjustment to new conditions. Those native to the North have to change traditional ways to adjust to new patterns, while those coming from the South have to adapt to the climatic and social environment of the North. The high prevalence of alcoholism is part of the difficult adjustment problem. Common to both groups and to all residents of the North, whether they be there permanently or for a short time only, is the problem of obtaining adequate services in emergencies. Such emergencies may affect an entire community, as in the case of an epidemic, or the individual and his family in the case of sudden illness or serious accident. The fear of something like that happening may, in fact, deter people from accepting assignments in the North. Not to speak of serious illness or accident, one needs to think only of being there with a persistent toothache without ready access to a dentist.

Such exigencies, of course, will not be entirely eliminated for some time to come, even with the most adequate services. Even if an aircraft stands ready to

¹ Kohn, R., The Health Status of the Canadian People, study prepared for the Royal Commission on Health Services, Ottawa: Queen's Printer, (in print).

fly in or out, it may be prevented from flying by the weather. These are some of the limitations imposed by geographic factors referred to before. But the risks can be substantially reduced by the implementation of measures now planned and proposed.

To meet the health needs of the North, it is necessary first to secure the required personnel, equipment, and facilities; and second, to make these resources available when and where needed.

The Northern Health Service of the Department of National Health and Welfare had developed and begun to implement its own version of regional planning some time ago. A five-year plan for the Northwest Territories¹ provides for three levels of health services, taking into account population, degree of isolation, and economic limitations:

- 1. the first level relates to small settlements containing only a few people; they would be largely dependent on their own resources, except that some rudimentary health training would be given a resident who would be paid a small stipend if warranted by workload and training; such localities would be visited but rarely by a physician or nurse;
- 2. the second level would be found at larger settlements, containing a considerable number of families, located or established communication lines; a nursing station, staffed by one or two Registered Nurses, would provide emergency and public health care, and they would be able to establish radio contact with a physician;
- 3. the third level, found in large settlements, such as Municipal Districts and Local Improvement Districts, would be served by one or more resident medical and dental officers and by a hospital which may range from a very small hospital to a larger well-equipped institution with the capability of an intermediate-type southern hospital.

The key worker is and will remain the public health nurse, with one nurse per 1,000 population thought to be required on the average. It would be part of the basic design of services that "well trained and experienced professional, medical, dental and nursing personnel must be deployed at strategic points chosen because they are centres of population or are crossroads for transportation and radio communication". The Service later elaborated on this idea by presenting to the Royal Commission a detailed plan of flying health service circuits which would be basic to having personnel and equipment in readiness for both regular periodic visits to settlements and for emergency calls.

In stating the philosophy behind its five-year development plan, the Northern Health Service expresses succinctly what has been said in the foregoing pages:

¹ Northern Health Service, Department of National Health and Welfare, Health Service Plan, Northwest Territories, 1962-67 (Revised), Ottawa: The Department 1961, p. IV.

² Ibid., p. V.

³ Ibid., p. 8.

⁴ Northern Health Service, Department of National Health and Welfare, Health Services for Small Population Groups in Outlying Areas of Northern Canada, brief submitted to the Royal Commission on Health Services, Ottawa: 1963.

*The first edition of this Plan was prepared on the assumption that Northern citizens are entitled to as good public health and treatment services as their Southern fellow-Canadians. However, it was realized that, because of problems of isolation, sparseness of population and the lower standards of living of many citizens, it would be many years before this assumption could be translated into reality. If Southern Canadians are to be attracted to the North — as settlers, not simply transients — and if well-trained and experienced personnel required for northern development are to be expected to go to the north and take their young families with them, sound local health services must be assured. ***1

What most distinguishes northern health services from those in the south, is the problem of logistics in the northern climate and terrain; it is not a difficult matter for a nurse to give a needed injection, but it is the business of getting there at the right time with the right equipment. Because of the uncertainties of northern transportation, the dissemination of health education assumes far greater importance than elsewhere in order that all citizens may have at least some knowledge in the prevention of disease, preservation of health, first aid, and home nursing. The experience gained in the previously mentioned home care plan in Grande Prairie, in the training of lay personnel in home care may well lend itself to wider application in northern areas. The institution of the lay dispenser, usually located at some outpost of civilization supplied with medicines by the Service, and the medicine chest made available to isolated or nomadic population groups, will, under the prevailing circumstances, go a long way in filling the gap between professional care and no care at all.

The practice of medicine in these outlying areas is, of course, based on the same body of knowledge as that elsewhere in Canada. Its application, however, requires shifting roles and responsibilities. The active participation of lay people in dispensing emergency care has been mentioned; southern health services, too, could perhaps profit from this experience under certain circumstances such as in dealing with accident injuries along highways and other emergencies.

The nurse replaces the physician as the first line professional provider of health care. A somewhat similar trend has been observed in regard to organized home care where the nurse also assumes greater responsibility and works more independently than either the hospital nurse or the nurse doing traditional public health work. The nurse in the northern service is still for more isolated from professional contacts as well as from ancillary personnel and members of other disciplines: she cannot call in homemaker services, trained assistants, nor readily a social worker, therapist, or technician. She also has to combine the functions of the visiting nurse, hospital nurse, and midwife with that of the public health nurse, and all this under most difficult circumstances and with a

¹ Northern Health Service, Department of National Health and Welfare, Health Service Plan, Northwest Territories, 1962-67 (Revised), Ottawa: The Department 1961, p. 1.

² Ibid., p. 5.

³ Ibid., p. 8.

minimum of equipment. Visiting the health installations in the North one cannot help being impressed by the high calibre of the nurses and their inspiring sense of service. The best way to support them in their task apart from providing suitable working conditions, is to design their training so that it best prepares them for the situation they will encounter in the field — an observation which applies equally to physicians and other health professionals in the North — and also to realistically and clearly define their function and authority in relation to that of the usually far distant physician. The nurses seem to be very well aware of their position and limitation, but they should be protected in actions which emergency situations and their professional conscience may force them to take. It would be advantageous, no doubt, to induce nurses, like other health personnel, to make their residence in the North for longer than a one- or two-year period of duty. This is part of the general recruiting problem which will be discussed later.

It is obvious that we cannot, for many years to come, expect patterns of professional practice as they prevail in the South of Canada to be established in the North. Private professional practice will remain the exception rather than the rule, limited to a few larger and economically well-established settlements.

The type, size, and distribution of institutional facilities will have to be based on the kind of criteria mentioned above, peculiar to the needs of regions. Unifom population-bed ratios or occupancy rate lose any significance they may have elsewhere under these varied circumstances. Considerations of logistics play a large part in the erection and operation of health facilities and one always has to reckon with quickly changing population patterns. Lack of a diversified economy means that settlements may rise as suddenly as they may disappear as mines, defence installations, or other sources of employment open and close their doors. Technological obsolescence at perhaps a faster rate must be accepted in the North because of a great need for up-to-date and the most suitable and effective methods of construction and communication.

This is one reason why existing plans for northern health services should be implemented without delay, before they become obsolescent. The other and main impelling reason, however, is the deplorable condition under which some Canadians now live in the northern part of the country, a condition which would not be tolerated elsewhere. Highest priority should be assigned, therefore, to the implementation of the development plans of the Northern Health Service, including the proposed flying health service circuits. There probably will be a continuing need for the type of service now provided in the eastern arctic by the annual trips of the C.C.G.S., C. D. Howe of the Department of Transport.

In addition to the personnel permanently stationed in strategic locations throughout the area, there is a need for regular periodic visits by specialists, dentists and dental auxiliary personnel, as well: of technicians and therapists.

¹ Both for consultation in specific cases and for more general seminar sessions for groups of personnel brought together for the purpose from a wider area.

Adequate telecommunication service on a twenty-four-hour basis should be available to all personnel who may have to contact an outside centre for consultation or to summon assistance or transportation. The availability of air ambulance and transport for patients and personnel into and out of the northern settlements is an essential for a northern health service, but because of its high cost care must be taken that it is used as efficiently as possible; where indicated it may be pooled to also serve the needs of other services.

In the provinces the cost of bringing better health services to the sparsely populated areas of Canada's North has been accommodated in the budgets of the provincial departments of health. The Northern Health Service, serving the Yukon and the Northwest Territories, however, is a branch of the federal Department of National Health and Welfare and not part of the northern administration of the Territories. The integration with the Department of National Health and Welfare rather than the regional administration may have certain technical advantages, such as the pooling of personnel and certain other resources, but it may create difficulties where the budget of the Northern Health Service is determined within the framework of the department with its many other functions, instead of within the requirements of the territorial administration. The actual costs are now shared between the Northern Health Service and the territorial administration this applies to the capital cost of installations and the operating cost, the latter being shared according to the composition of the population covered, i.e., Indians, Eskimos, and others.

Transportation and communication facilities lend themselves particularly to pooling among the health services and other agencies. The operating cost of the proposed flying health services circuits is estimated at \$230,000 in 1963,² composed of \$130,000 travel costs and \$100,000 as the cost of extra personnel required and their logistic support. The cost of treatment services alone, borne by the Northern Health Service, amounted to approximately \$3.2 million in the fiscal year 1961-62.² The flying services would serve the entire population of the Territories at a cost equivalent to that of treating 35 cases of tuberculosis,³ and it may be noted here that one outbreak of tuberculosis in a small village produced within six months 80 cases of active tuberculosis, leading the investigator to comment: "Needless to say I can think of better ways for us to spend the half million dollars in public money that this epidemic will cost us — ways that would have benefited these children a good deal more." In interpreting and comparing the costs of providing health services in the North, it must be borne in mind that these services combine both the traditional public health functions of prevention

¹ Northern Health Service, Department of National Health and Welfare, Health Services for Small Population Groups in Outlying Areas of Northern Canada, brief submitted to the Royal Commission on Health Services, Ottawa: 1963, p. 7.

² Ibid., p. 7.

³ Ibid.

⁴ Moore, P.E., An Epidemic of Tuberculosis at Eskimo Point, Northwest Territories, Ottawa: Queen's Printer, 1963, p. 1.

and education, and the personal health services of diagnosis and treatment. The same would apply to the flying health service circuits which, by facilitating regular visits by health personnel, would have the advantage not only of preventing certain health problems altogether but also of detecting and possibly controlling others before they grow to more serious proportions.

In regard to personnel, the need is for careful training and selection. The difficult problem of recruiting could be eased by recognizing that service in the North is essentially different in many respects from that in the southern part of the country because of the climate as well as the isolation and lack of many amenities. These drawbacks must be compensated for by working conditions sufficiently attractive to induce well qualified people to go there and, preferably, to stay for a period of at least 5 or 6 years. Pay and other working conditions may be patterned similar to those provided, for instance, by the United Nations and other organizations which recruit personnel for service in areas remote from their accustomed environment. They naturally would include benefits (in pay, leave privileges, transportation, fringe benefits for the employee and his family, possibly housing, etc.) which are not usual in the settled parts of Canada.

In recruiting health personnel for the North, one should also appeal to the enthusiasm and idealism of those, particularly among medical students and young graduates, who wish to apply their knowledge and skill in places where it is most urgently needed.

In the long run, the natural thing to aim at would seem to be the employment to the greatest possible extent of those who already consider that part of Canada their home. Education and training in the health professions and occupations should be given to the permanent residents of the North. Promising but small beginnings have already been made with the training of local residents as sanitation workers and nursing assistants. This should receive greater attention as an essential part of personnel policy in the North and should be extended so as to offer to the permanent residents of the region education and training in all health fields, either in regional centres in the North or in established schools in the South. There should be no compulsion for these trainees to practise in the North but they would be better suited and in general probably more inclined to follow a career in the North than the mostly transient personnel from the South. It has been suggested that the best solution for the Eskimos would be to bring them all south and settle them here. This may be the quickest way of

What D. Jenness proposes in regard to navigation, very largely applies also to other services in the North: "Denmark has trained some of its 30,000 Greenlanders, first cousins of our Eskimos, to handle all the traffic along the coast of their large Island. Would it not pay us to follow the same policy in the Northwest Territories -- To train our Eskimos, who are familiar from childhood with the arctic environment, to man and navigate not only the coastal motor-schooners that a few of them already operate, but the large ice-breaking ships and cargo vessels that now ply our northern waters? The leaders of our Eskimos half a century ago left no successors. They raised up no Churchill to take up a microphone and call to Canadians from coast to coast: 'Give us the education and the training, give us the opportunity to work, and we, in partnership with you, will build up a new Arctic.''' -- Jenness, D., Eskimo Administration: II, Canada, Arctic Institute of North America, Technical Paper No. 14, 1964, p. 178.

providing them with a more humane environment and it may be also cheaper to house them here than to build houses and all the other facilities for them in the North. But then, does Canada not have to maintain communities in the North for the several reasons mentioned above? The Eskimos must be as free as all other Canadians to decide where they want to be and what they want to do. But they must also be given the same opportunities to prepare themselves for a career and to make an informed decision. If the choice is between their present squalor and second class citizenship in the North, and a better life in the South, there can be no doubt as to their choice. But if they were provided with the same education and the same superior standards of living now maintained by officials going north for short periods and without intention to settle, the Eskimo familiar with the land may well be willing to remain or to return there and consider the region their home.

It is said that the solution of the remaining problems of the Indian and Eskimo population lies in education and ecomomic development which in this age of technology is so largely dependent on education. This is no doubt true and this approach must be followed vigorously. But it is a solution which will take one or more generations to bear fruit whereas the problems of health and other human values are immediate and urgent. Remedial action in this field must, therefore, be undertaken immediately.

Health services of the kind now planned and here discussed are essential. But the people of the North will not reap their full benefits and even the best of health services will fall short of their objective unless they are accompanied by better housing together with improved sanitation, water supply, and general community development. For its approaching centennial, Canada is counting its blessings and using the occasion to catch up with a backlog in fields where it exists, such as opportunities for the arts. Would it not be appropriate now, after a century of nationhood, to permit Canada's vast outlying areas too to participate in the development of the rest of the country?

Comparisons may be made between the northern development in Canada and other countries such as the Soviet Union which, however, has greater resources and perhaps has certain advantages favouring the development of the north. But even Denmark, a much smaller country with fewer resources than Canada, seems to have been able to develop distant Greenland a good deal faster than we have our own northland. These, however, are observations going far beyond the field of health services. They illustrate, nevertheless, the basic concept of health as a state of physical, mental, as well as social well-being where one phase cannot be obtained or maintained in isolation from the others.









